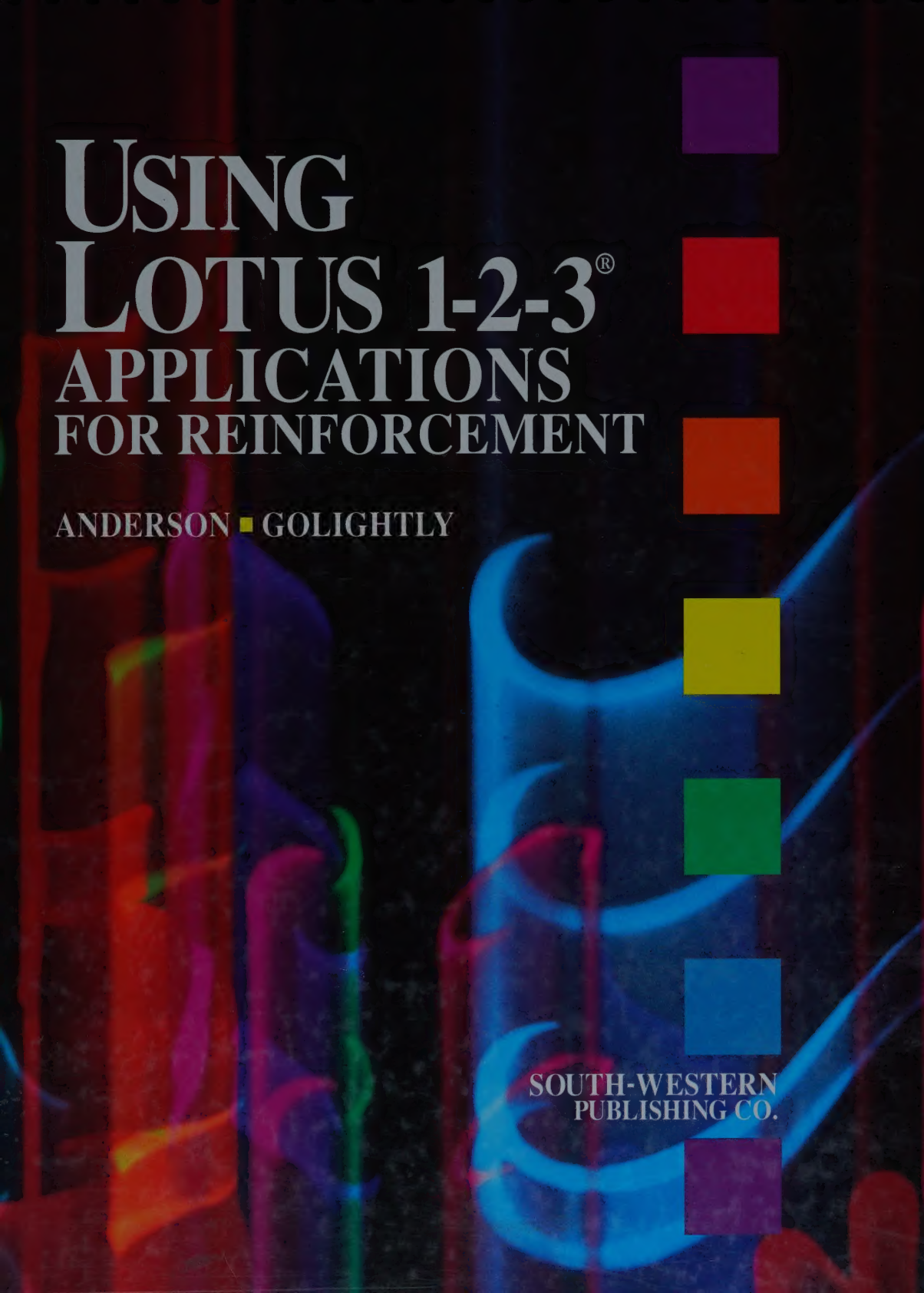
USING LOTUS 1-2-3®
APPLICATIONS FOR REINFORCEMENT

ANDERSON ■ GOLIGHTLY



SOUTH-WESTERN
PUBLISHING CO.

USING LOTUS 1-2-3® APPLICATIONS FOR REINFORCEMENT

WYNEMA ANDERSON

Ada High School
Ada, Oklahoma

STACEY GOLIGHTLY

Ada High School
Ada, Oklahoma

SOUTH-WESTERN
PUBLISHING CO.

ДОЛЕЗ-2,5®

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PREFACE

Using Lotus 1-2-3: Applications for Reinforcement is designed to provide application practice for basic through intermediate features of Lotus 1-2-3. This book is written for 1-2-3, Release 2.3 and 2.4. Users of earlier releases will find the book useful but they should be aware that these releases contain some new features that are used in this book. This text may be used to supplement a Lotus 1-2-3 tutorial such as South-Western's *Lotus 1- 2- 3 Tutorial and Applications* by providing additional application practice or review and reinforcement after students have completed their initial Lotus 1-2-3 training.

Using Lotus 1-2-3: Applications for Reinforcement is divided into 10 chapters. The Lotus 1-2-3 features are presented in the same order in this text as in South-Western's *Lotus 1-2-3 Tutorial and Applications* to allow the two texts to be used together easily.

Each of the 165 jobs in the text has instructions for completing the job, and most jobs include material to create or revise a spreadsheet. Many jobs also contain software reviews. The first time a Lotus 1-2-3 feature is used in the text, a brief, concise review of the software feature is included in that job. When applicable, the user is directed to SmartIcon use.

One or more reinforcement jobs are included in each chapter to provide additional practice for the Lotus 1-2-3 features covered in that chapter. Reinforcement jobs often combine practice for two or more software features in one job. These jobs can be used in combination with software reviews in the chapter for students who need more practice on a particular feature, or alone as enrichment or supplemental activities for students who need more challenging applications.

Using Lotus 1-2-3: Applications for Reinforcement may be used for group instructions or for self-paced, individualized instructions. The completion time for the text will vary depending upon the student's ability and previous experience with Lotus 1-2-3. Completion time will also vary if the instructor chooses to have students print only selected jobs. An average completion time for the manual is 43 hours. Estimated completion times for regular jobs and reinforcement jobs are included in each chapter.

TEACHER'S MANUAL

A teacher's manual is available for use with *Using Lotus 1-2-3: Applications for Reinforcement*. This manual includes an overview of the text, teaching suggestions, student learning objectives, suggested grading procedures, application tests, test solutions, and job solutions.

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USING SMARTICONS

In Lotus 1-2-3, Version 2.4 and higher, the SmartIcons add-in provides icons that give easy access to 1-2-3 and Wysiwyg features. The add-in feature has a total of 77 icons organized in palettes (columns of icons) that appear to the right of the worksheet. The total number of palettes depends on the screen display and whether or not Wysiwyg is attached.

The first palette (Palette 1) is the custom palette. It can be modified to display the icons used most often. There is a ◀ 1 ▶ at the bottom of the column. Palettes 2 through 6 have icons that are fixed. They can be copied to the custom palette, but they cannot be moved or deleted. The last palette contains icons U1 through U12. These are user icons. Therefore, icons can be assigned to this palette.

To select an icon with a mouse:

a. If the icon needed is not on the visible palette, click the arrow on either side of the palette number to scroll backward or forward to the correct palette.
b. Click the icon needed.

To select an icon with the keyboard:

a. Press Alt + F7 or the key assigned to SmartIcons when it was attached. 1-2-3 highlights the first icon in the current palette.
b. Use the arrow keys to move the highlight to the icon needed and press Enter.

To highlight a cell or a range of cells before you select an icon:

a. To highlight a single cell, use the arrow keys to move the cell pointer to the cell.

   or

   Click the cell with the mouse.
b. To highlight a range of cells, use the arrow keys to move the cell pointer to the first cell in the range to be highlighted, press F4, highlight the range by moving the cell pointer with the arrow keys to the last cell to be highlighted, and press Enter.

   or

   Click the first cell in the range to be highlighted and drag the cell pointer to highlight the range and press Enter.

QUICK REFERENCE

Absolute reference	$A$1
Cancel	ESC
Center a cell or range	^ or /rlc
Chart, pie	/gtp
Clear screen	/wey
Column width, set	/wcs
Comma format	/rf,
Copy	/c
Currency format	/rfc
Data fill	/df
Date format	/rfd
Delete a cell or range	/re or DEL
Delete a column	/wdc
Delete a row	/wdr
Edit	F2
Erase a cell or range	/re or DEL
Extract	/dq
File, retrieve	/fr
Files, erase	/fe
Files, list	/fl
Files, save	/fs
Format, commas	/rf,
Format, currency	/rfc
Format, date	/rfd
Format, fixed decimals	/rff
Format, percent	/rfp
Formula, Addition	+
Formula, Division	/
Formula, Multiplication	*
Formula, Subtraction	-
Global, comma format	/wgf,
Global, currency format	/wgfc
Global, fixed format	/wgff
Global, percent format	/wgfp
Global, set column width	/wgc
Go to	F5
Go to A1	HOME
Graph, +/-	/rf+
Graph, 3D	/gtf3y
Graph, bar	/gtb
Graph, grid	/gog
Graph, HLCO	/gth
Graph, legends	/gol
Graph, line	/gtl
Graph, name	/gn
Graph, pie	/gtp
Graph, print	/qy and key pgraph, i
Graph, quick	/gg
Graph, save for printing	/gs
Graph, table	/gnt
Graph, titles	/got
Graph, use	/gnu
Graph, view	/gv or F10
Graph, xy	/gtx
Insert a column	/wic
Insert a row	/wir
Left align a cell or range	' or /rll
Line, horizontal	\ + character
Line, vertical	\i
Macro, create	/rnc
Macro, use	Alt + name
Move	/m
Percent format	/rfp
Print	/ppr
Quit	/qy
Retrieve	/fr
Right align a cell or range	" or /rlr
Save	/fs
Save a revised file	/fsr
Sort	/ds
Titles, lock both	/wtb
Titles, lock horizontal	/wth
Titles, lock vertical	/wtv
Titles, unlock	/wtc
Windows, clear	/wwc
Windows, create horizontal	/wwh
Windows, create vertical	/wwv
Windows, switch	F6

Function Commands

Add values of a range	@SUM
Average of a range	@AVG
Date format	@DATE
Determine payment	@PMT
Future value of an investment	@FV
Maximum value of a range	@MAX
Minimum value of a range	@MIN
Number of entries	@COUNT
Retrieve cell contents	@VLOOKUP
Retrieve cell contents	@HLOOKUP
Tests a condition	@IF

Wysiwyg Commands

Add graph to a spreadsheet	: ga
Bold, add or delete	: fb
Lines, horizontal	: fl
Lines, vertical	: fl
Print	: p
Shading, add or delete	: fs
Underline, add or delete	: fu

CHAPTER 1

Jobs 1—10 Creating and Printing Spreadsheets

Time Estimate: 3 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Create and save a spreadsheet
2. Use a SmartIcon
3. Create a simple formula
4. Retrieve, resave and print a file
5. Copy data in a spreadsheet

Create and Save a Spreadsheet

The football coach needs a list of players and sprint speeds.

1. Enter the information below in a spreadsheet. Do not be concerned if the data overlaps to the next column. If you make an error before you press Enter, use the ← (Backspace key) to make any changes. If you make an error after you press Enter, move the cell pointer to the cell you wish to correct and enter new data. The previous data will disappear after you press Enter. To clear a cell, press Del (older versions-/, r, e, Enter).

	A	B	C	D	E	F
1	TIGER VARSITY FOOTBALL RECORDS					
2						
3	Name of Player			Speed (40 Yds.)		
4						
5	Allen Thompson			5.1		
6	Todd White			4.6		
7	Terry Phillips			4.9		
8	Carter Harrison			6.2		
9	Darrel Fisher			5.1		
10	Jay Hardin			4.9		
11	Pat Evans			5.7		
12	Tommy Anderson			4.8		
13	James Smith			6.1		

1-2-3 Review

- **Save a File:**
  Press /
  Choose File, Save

2. When the spreadsheet is complete, follow the directions below to save your work. Name the file FBALL.
   a. Press / to display the main menu in the control panel.
   b. Choose **File**, **Save**.
   c. Key the file name **FBALL** and press Enter. It is not necessary to erase the information at the prompt before you key the name.

3. Follow the directions below to clear the screen.
   a. Press / to display the main menu in the control panel.
   b. Choose **Worksheet**, **Erase**, **Yes**.

- **To Clear the Screen:**
  Press /
  Choose Worksheet, Erase, Yes

Use the SmartIcons

Prepare a table with extra-credit points for the computer class.

1. Enter the information below in a spreadsheet.

	A	B	C	D
1	COMPUTER CLASS			
2				
3				Extra
4	Student			Credit
5	Name			Points
6				
7	Allen, S.			8
8	Bell, W.			21
9	Carter, S.			2
10	Harrison, S.			14
11	Hood, B.			19
12	Johnson, C.			11
13	Anderson, B.			22
14	Smith, J.			9

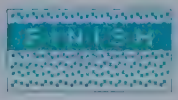
1-2-3 Review

2. When the spreadsheet is complete, save your work. Name the file CLASS. If SmartIcons are available, you can use the Save icon to save your file.
   a. When a SmartIcon is available for a particular 1- 2- 3 feature, the SmartIcon will be displayed near the instruction that uses the feature, as shown at the right.

Continued on Next Page

Tipton Graphics purchased printing equipment January 5, 1995. The original cost was $25,000, the estimated salvage value is $1,500, and the estimated useful life is 10 years. Retrieve DEPR and make the necessary adjustments to the spreadsheet to create a depreciation schedule for 10 years.

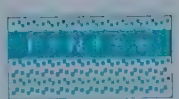
Save the spreadsheet. Name the file DEPR4. Print the spreadsheet.



b. If the SmartIcon operates on a range of data, the word "Range" will appear under the graphic. Before you select the icon, highlight the range by using the mouse (click and drag), or use the keyboard (F4, arrow keys, Enter).
c. Locate the icon on the palette to the right of your spreadsheet, and select it with your mouse (click), or use the keyboard (Alt-F7, arrow keys, Enter).

NOTE: The SmartIcons add-in provides you with icons that give you easy access to 1-2-3 Wysiwyg features. To use the icons, you must attach the SmartIcons add-in and you must have a mouse. See page xi for additional instructions for using a SmartIcon.

3. Clear the screen.



Assume that you were recently employed by the Dance Studio. Retrieve the master file, INFOR, and complete the spreadsheet.

Save the spreadsheet. Name the file INFOR3. Print the spreadsheet.

Reinforcement

The Freeman Clinic is keeping a record of weight loss for each patient.

1. Enter the information below in a spreadsheet.

	A	B	C	D
1	FREEMAN CLINIC			
2				
3	Patient		Weight Loss	
4				
5	Bell, W.		9	
6	Brown, T.		32	
7	Carter, S.		2	
8	Harrison, M.		14	
9	Hood, D.		6	
10	Ward, B.		11	
11	Johnson, C.		22	
12	Lowe, K.		13	
13	Ross, C.		0	
14	Smith, J.		4	

2. When the spreadsheet is complete, save your work. Name the file CLINIC.

3. Clear the screen.

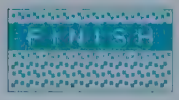
Use the master spreadsheet, BALANCE, to prepare a balance sheet for Cunningham Furniture. Date the spreadsheet January, 19--.

The Assets are as follows. Enter the values in column D.

Cash	10,878
Accounts Receivable	30,752
Merchandise Inventory	62,361
Supplies	750
Prepaid Insurance	425

The Accounts Payable balance is $15,055 and the Capital is $90,111. Enter these values in column E.

Save the spreadsheet. Name the file BALANCE3. Print the spreadsheet.



Reinforcement

The International Business Corporation needs a table with information about employees' travel distance.

1. Enter the information below in a spreadsheet.

	A	B	C	D	E	F	G
1	INTERNATIONAL BUSINESS CORPORATION						
2							
3					Miles to		Miles to
4	Employee				Office		Shop
5							
6	Allen, S.				8		11
7	Bell, W.				21		22
8	Brown, T.				2		9
9	Carter, S.				14		18
10	Harrison, S.				19		16
11	Hood, B.				11		9
12	Johnson, C.				22		31
13	Anderson, B.				9		7
14	Smith, J.				6		17
15	Stafford, M.				15		3
16	Low, R.				1		17

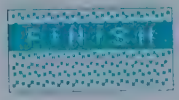
2. When the spreadsheet is complete, save your work. Name the file INTER.

3. Clear the screen.

Reinforcement

Tipton Graphics purchased a new delivery truck January 5, 1995. The truck's original cost was $18,000 and the estimated salvage value is $2,000. Use the master spreadsheet, DEPR, to prepare a depreciation schedule for this new piece of equipment.

Save the spreadsheet. Name the file DEPR3. Print the spreadsheet.



Reinforcement

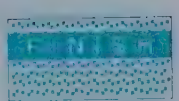
Central High School needs a table with student names and the number of days they were absent.

1. Enter the information below in a spreadsheet.

	A	B	C	D	E	F	G
1	CENTRAL HIGH SCHOOL ATTENDANCE RECORDS						
2	BUSINESS DEPARTMENT						
3							
4	Name of Student				Days Absent		
5							
6	Johnson, Julie				11		
7	Loman, Cissy				3		
8	Phillips, Terry				6		
9	Harrison, Mary				2		
10	Thompson, Bonnie				1		
11	Woods, Joe				0		
12	Stafford, Shawn				11		
13	Anderson, Lynn				5		
14	Moore, Steve				10		
15	Smith, Chad				14		
16	Wood, Nathan				1		
17	Pryor, Brie				2		
18	Young, Julie				0		

2. When the spreadsheet is complete, save your work. Name the file CENTRAL.

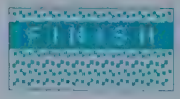
3. Clear the screen.



Reinforcement

Erin and Phil Richie have a new baby. They have decided to start a college savings plan for their baby. Refer to Job 153 and create a spreadsheet so they can determine how much money they will have if they deposit $1,000, $2,000 or $3,000 at the end of each year. They expect the money to earn an average of 6% interest, and they plan to make 18 payments.

Save the spreadsheet. Name the file RICHIE. Print the spreadsheet.



Create a Formula

A local business needs an inventory price sheet.

1. Enter the data below in a spreadsheet.

	A	B	C	D	E	F
1	COMPUTER SOFTWARE COST SHEET					
2						
3						Total
4	Program		Cost	Inventory		Cost
5						
6	Sports		14.95	11		+C6*D6
7	Religion		14.95	34		
8	Holidays		14.95	65		
9	Borders & Boxes		29.95	76		
10	Cartoons		29.95	36		
11	Cartoons II		39.95	49		

2. Follow the instructions below to key a formula that multiplies Cost by Inventory to calculate the Total Cost in cells F6 through F11. Numbers will be formatted later.
   a. Key a + sign in front of the first cell address to indicate the entry will be a formula rather than a label.
   b. Key the cell addresses and the multiplication symbol to create the formula (+C6*D6).

1-2-3 Review

- **Key a Formula:**
  Key a + sign
  Use + for addition
  Use - for subtraction
  Use * for multiplication
  Use / for division

3. When the spreadsheet is complete, save your work. Name the file SOFT.

4. Clear the screen.

FINISH

After Susan Hart added her room, she still does not have enough living space, so she has decided to buy a new home. She has checked with Home Loan and Savings Company and has found that she can borrow money at an 8% interest rate for 20 years (240 months). After reviewing her budget, she decides that she can make a down payment of $10,000 and payments of $1,200 per month.

Use the spreadsheet you developed named HART to determine the monthly payment for the houses listed below. Print the range A1 through E10 for each house she can afford. Change A2 to include the house address. Delete A3.

```
6001 N. Brookline    $ 89,500
8401 East Reno        165,000
1111 North Dewey      115,000
4821 Agnew            155,500
7102 N. Classen       109,000
```

Save the spreadsheets you print with appropriate names.

Retrieve, Resave and Print a File

Freeman Clinic wants to add current weights to the spreadsheet.

1. Follow the directions below to retrieve your file, CLINIC.
   a. Press / to display the main menu.
   b. Choose **F**ile, **R**etrieve. If there is a spreadsheet on the screen that has not been saved, 1-2-3 prompts you to save. Otherwise, 1-2-3 replaces the spreadsheet without saving it.
   c. Either key the name of the file and press Enter, or use the → (right arrow) to scroll through the file names until you find the one you want.

      or

      Press F3 to display a full-screen list of files.

2. Key the additional data below starting in cell E3.

1-2-3 Review

- **Retrieve a File:**
  Press /
  Choose **F**ile,
  Retrieve

	E	F
3	Current Weight	
4		
5	146	
6	158	
7	132	
8	177	
9	150	
10	182	
11	133	
12	147	
13	201	
14	166	

Continued on Next Page

Reinforcement

The Employee Charge Schedule has been revised.

1. Retrieve MCPHEE.
2. Some of the rates have changed. Change the rates in the Employee Charge Schedule as follows:

Clerk	9	72	325
CPA	65	520	
Secretary	11	88	425

3. Sort the Staff names in alphabetical order.
4. Save the spreadsheet. Name your file MCPHEE2.
5. Print the range A1 through E19.

3. Follow the directions below to save the revised spreadsheet. Name the file CLINIC2.
   a. Press /.
   b. Choose **File**, **Save**.
   c. The name of the file will appear. To save the file with a different name, key the name without erasing the previous name and press Enter.

1-2-3 Review

Save a Revised File:

Press /
Choose File, Save
Choose Replace or
Key a new name

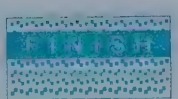
4. Follow the directions below to print a section of this spreadsheet, the range A1 through D14.
   a. Place the cell pointer in the first cell to be printed.
   b. Press /.
   c. Choose **Print**, **Printer**. The Print Settings dialog box will appear. Do not make any changes at this time.
   d. Choose **Range**.
   e. To anchor the beginning of the range, press the period (.) key. Next, move the cell pointer to the last cell of the range to be printed and press Enter.
   f. Select **Align** to ensure that page breaks will be at the correct location.
   g. Select **Go**.
   h. Select **Page** to move to the top of the next page.
   i. Choose **Quit**.

Print a File:
Press /
Choose Print,
Printer
Choose Range
Select print area
Choose Align, Go
Choose Page, Quit

5. If SmartIcons are available, you can use the Printer icon to print the spreadsheet.
   a. Use the mouse to select the entire spreadsheet area to be printed.
   b. Click the Printer SmartIcon.

6. Clear the screen.

Range



4. Use @HLOOKUP to enter the commission rates in column C. The rate for the sales is in B7, the range to look through is B24 through H26 (absolute), and the rate is two rows under the At least row (24).

5. Multiply Sales by Commission Rate to determine Commission Earned.

6. Format all commission rates to percent with 0 decimal places and format all other values to commas with 2 decimal places.

7. Save the spreadsheet. Name your file PIER.

8. Sort the broker names in alphabetical order by the last name.

9. Resave the spreadsheet with the same name and print the range A1 through D21.

Copy Data in a Spreadsheet

Two tests have been taken in the computer class. Add this information to your spreadsheet. Also, create a Total Points column.

1. Retrieve CLASS.

2. Key the additional data in the spreadsheet below. To enter a label that starts with a number, you must key an apostrophe (') first.

	E	F	G
4	1st	2nd	Total
5	Test	Test	Points
6			
7	82	91	+D7+E7+F7
8	91	65	
9	77	82	
10	62	75	
11	96	97	
12	91	88	
13	88	88	
14	69	78	

3. Enter a formula to determine the Total Points in cell G7. Follow the directions below to copy the formula in cell G7 to cells G8 through G14. The labels and numbers will be formatted properly in a later job.
   a. Move the cell pointer to G7, the first cell to be copied.
   b. Press /.
   c. Choose Copy.
   d. Press Enter to copy a single cell.

   or

   Use the arrow keys to highlight a range of cells to be copied and press Enter.

1-2-3 Review

- **Copy Data:**
  Press /
  Choose **Copy**
  Press ↵ or
  Select **Range**

Range

Continued on Next Page

Use Horizontal Lookup

In order to determine the weekly commission for each broker, Pier Importing needs a spreadsheet that will give each broker's sales, the commission rate, and the commission earned.

1. Adjust the column widths as necessary and create the spreadsheet below.

	A	B	C	D	E	F	G	H
1	PIER IMPORTING							
2	MONTHLY COMMISSION REPORT							
3								
4			Commission	Commission				
5	Broker	Sales	Rate	Earned				
6								
7	Reese, Bob	40842						
8	Walters, Billy	31021						
9	Mason, David	3021						
10	Zachary, Mike	59921						
11	Logan, Jim	106821						
12	Isaacs, Danny	92421						
13	Bowers, Curtis	38261						
14	Godwin, Tracey	10911						
15	Carson, Holly	8432						
16	Holt, Erin	44380						
17	Haines, Kim	76001						
18	Andrews, Ken	61208						
19	Gunter, Jason	4401						
20	Lillard, Luciana	39902						
21	Farris, Nicole	786						
22								
23	COMMISSION RATE TABLE							
24	At least--	0	10000	20000	30000	40000	50000	75000
25	Not over--	9999.99	19999.99	29999.99	39999.99	49999.99	74999.99	
26	Rate--	0.01	0.02	0.03	0.04	0.05	0.07	0.1

2. Center the column headings in columns B, C and D.

3. If Wysiwyg is available, shade the Commission Rate Table.

Continued on Next Page

e. Move the cell pointer to where the first cell is to be copied and press Enter to copy into a single cell.

or

Key a period (.) to anchor the range and use the arrow keys to highlight all cells to be copied into.

4. Save your work. Name the file CLASS2.

5. Follow the directions below to print the entire spreadsheet.
   a. Press /.
   b. Choose **P**rint, **P**rinter. The Print Settings dialog box will appear. Do not make any changes at this time.
   c. Choose **R**ange.
   d. Press Home, ., End, Home to highlight the entire spreadsheet. Press Enter.
   e. Select Align to ensure that page breaks will be at the correct location.
   f. Select **G**o.
   g. Select **P**age to move to the top of the next page.
   h. Choose **Q**uit.

6. Clear the screen.

2. Right align the column headings in columns C, D and E.

3. Follow the directions below to use horizontal lookup to enter shipping and handling charges in cells D6 through D18.
   a. Move the cell pointer to D6.
      The @HLOOKUP function will cause the program to search the range B22 through I24 for the value in cell C6. The search ends when the first value greater than the value in C6 is found. The program then returns to the next lower value in the column and enters the number two rows under the At least line (22).
   b. Key **@HLOOKUP(C6,$B$22.$I$24,2)**. C6 is the location of 12.95, and $B$22.$I$24 is the range to search through for 12.95. The range must be an absolute value if it is to be copied. The 2 locates the number found two rows under row 22.

1-2-3 Review

- **Horizontal Lookup:**
  Key @HLOOKUP (*Reference,Range, Row-offset*)

4. Copy the formula to complete column D.

5. To determine the Total Charges in column E, add Shipping & Handling + Cost.

6. If Wysiwyg is available, shade the Shipping & Handling Table.

7. Format the entire spreadsheet for fixed format with 2 decimal places.

8. Save the spreadsheet. Name your file GIFT.

9. Print the range A1 through E18.

Reinforcement

International Business Corporation needs employee addresses. Add this information.

1. Retrieve INTER.
2. Key the additional data from the spreadsheet below. Don't forget to use the apostrophe for labels that begin with a number.

	C	D
4	Address	
5		
6	88 Fox Circle	
7	Route 6	
8	2240 Broad Rd.	
9	4460 Foster Ave.	
10	P.O. Box 24-886	
11	8890 N.W. 63	
12	5580 Hyde Park Dr.	
13	P.O. Box 88-961	
14	400 E. Parkway	
15	507 North Crest	
16	1141 Broad Rd.	

3. Save your work. Name the file INTER2.
4. Print the spreadsheet.

Use Horizontal Lookup

Create a spreadsheet with a shipping and handling charges table for The Gift Store.

1. Adjust the column widths as necessary and create the spreadsheet below.

	A	B	C	D	E	F	G	H	I
1	THE GIFT STORE								
2	Lebanon, New Hampshire								
3				Shipping &	Total				
4	Item(s)		Cost	Handling	Charges				
5									
6	Set of 4 Magnets		12.95						
7	Set of 8 Magnets		24.95						
8	Set of 12 Magnets		34.95						
9	Set of 24 Magnets		69.95						
10	Microware Rice Cooker		11.98						
11	Decorative Tablecloth		29.95						
12	Video Cassette Rewinder		15.85						
13	Flag Display Case		49.98						
14	Cast Iron Sundial		39.98						
15	Personalized Kitchen Clock		22.98						
16	Indoor-Outdoor Impatiens		12.98						
17	Food Dehydrator		59.95						
18	Cast Iron Bird Bath		25.98						
19									
20									
21	SHIPPING & HANDLING CHARGES								
22	At least--	10.00	20.00	30.00	40.00	50.00	60.00	75.00	100.00
23	Not over--	19.99	29.99	39.99	49.99	59.99	69.99	99.99	200.00
24	Rate	3.45	4.45	5.45	6.45	7.45	8.45	9.45	9.95

Continued on Next Page

Reinforcement

The software file needs to be updated.

1. Retrieve SOFT.

2. Add the additional data below to the spreadsheet. Copy the formula in cell F11 to F12 through F27 to complete the Total Cost column.

	A	B	C	D
12	Business I		29.95	77
13	Business II		39.95	104
14	Business III		39.95	112
15	Calendar Creator		49.95	34
16	Organizer		19.95	98
17	Label Creator		49.95	201
18	Paint Power		99.95	22
19	Time Manager		14.95	48
20	Schedule Creator		19.95	38
21	Taxes--Fed.		49.95	96
22	Taxes--Texas		39.95	24
23	Taxes--Kansas		39.95	36
24	Taxes--FICA		19.95	18
25	Careers		49.95	14
26	DOS Tutor		29.95	88
27	Utilities		29.95	26

3. The default for labels is left alignment. At times a spreadsheet will be easier to read if the column headings are centered or right aligned.
   a. To center a heading, key the caret (^) before the heading.
   b. To right align, key a quotation mark (") before the heading.
   c. An apostrophe (') makes the heading align to the left.
   Rekey to center the heading in column A (^Program). Rekey to right align the heading in column C ("Cost). Also, right align the heading in columns D and F.

4. Save your work. Name the file SOFT2.

5. Print the spreadsheet.

2. Right align column headings in columns B through O.

3. If Wysiwyg is available, follow the instructions below to shade the grading scale.
   a. Press : to bring up the main menu.
   b. Choose **F**ormat, **S**hade, **L**ight.
   c. The message **Change the attributes of range** will appear. Key or highlight the range (N26 through O31).

4. Use the @SUM formula to determine the total points in column N.

5. Complete row 22 by using the @MIN formula.

6. Complete row 23 by using the @MAX formula.

7. Complete row 24 by using the @AVG formula. Format this row for fixed format with 0 decimal places.

8. Use @VLOOKUP to enter the final grade in column O. The grade for the points is in N8, the range to look through is N27 through O31, and the grade is one column right.

9. Save the spreadsheet. Name your file MORRISON.

10. Print the range A1 through O24.

CHAPTER 2

Jobs 11—16
Editing a Spreadsheet

Time Estimate: 3 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Edit a spreadsheet
2. Move data in a spreadsheet
3. Erase a range of cells

Use Vertical Lookup and Shading

Create a spreadsheet that Mr. Morrison can use to determine the final grade for his Accounting I class.

1. Adjust the column widths as necessary and create the spreadsheet below. You may want to lock your titles.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	ACCOUNTING I														
2	4TH GRADING PERIOD														
3	TEACHER - MR. RICHARD MORRISON														
4															
5		SG	PROB	TEST	SG	PROB	TEST	SG	PROB	TEST	SG	PROB	TEST	TOTAL	FINAL
6	STUDENT	21	21	21	22	22	22	23	23	23	24	24	24	POINTS	GRADE
7															
8	Ingram, J.	32	20	95	30	20	92	30	20	96	31	20	95		
9	Atkeson, B.	26	20	24	24	18	93	31	20	100	32	20	99		
10	Cash, K.	25	20	88	23	19	92	30	20	96	30	20	96		
11	Dalton, L.	28	20	82	26	20	74	25	20	88	22	20	88		
12	Gurley, J.	31	20	98	29	20	92	30	20	96	31	20	95		
13	Hendrix, S.	32	15	71	30	20	93	31	20	93	32	20	99		
14	Markes, J.	31	20	90	29	20	92	30	20	96	30	20	96		
15	Roberts, S.	18	20	88	16	20	74	25	20	88	22	20	88		
16	Stafford, A.	14	10	61	25	20	82	26	19	82	27	20	83		
17	Taylor, R.	32	20	95	30	20	90	31	20	92	32	20	92		
18	Morris, H.	26	20	82	24	20	80	24	17	80	28	20	86		
19	Blue, M.	25	19	44	21	15	57	12	8	72	20	16	68		
20	Compton, N.	25	20	90	21	17	81	24	18	71	25	20	73		
21															
22	Minimum														
23	Maximum														
24	Average														
25															
26														Points	Grade
27														0	F
28														369	D
29														430	C
30														492	B
31														552	A

Continued on Next Page

JOB 11

Edit a Spreadsheet

The coach wants a spreadsheet listing the height and weight of each senior team member.

1. Retrieve FBALL.
2. Add additional names to the bottom of the spreadsheet as shown in the worksheet below.

	A	B	C	D	E
1	TIGER FOOTBALL PLAYER RECORDS				
2					
3	Name of Player	Height			Weight
4					
5	Allen Thompson	6'1"			195
6	Todd White	5'11"			165
7	Terry Phillips	5'10"			172
8	Carter Harris	6'1"			206
9	Darrel Fisher	6'0"			200
10	Jay Hardin	5'11"			178
11	Pat Evans	5'10"			198
12	Tommy Anderson	5'11"			170
13	James Smith	6'0"			172
14	Bill Williams	6'1"			195
15	Jeremy Cox	5'8"			160
16	Jeff McNutt	5'11"			166
17	Josh Rhynes	5'10"			173

3. Follow the instructions below and use the edit key (F2) to change the entry in cell A8.
   a. Move the cell pointer to the cell to be edited and press the edit key (F2).

1-2-3 Review

Edit a Cell:
Press F2
Edit as desired or
Place pointer in cell to edit
Key the new data

Continued on Next Page

1-2-3 Review

- **Vertical Lookup:** Key @VLOOKUP (*Reference,Range, Column-offset*)

2. Follow the directions below to use vertical lookup to enter rates in cells C9 through E19.
   a. Move the cell pointer to C9.
      The @VLOOKUP function causes the program to search the range B27 through E30 for the word "Clerk" and enter the number that is located one column to the immediate right of Clerk.
   b. Key **@VLOOKUP(B9,$B$27.$E$30,1)**. B9 is the location of Clerk, and $B$27.$E$30 is the range to search through for the word "Clerk." The range must be an absolute value if it is to be copied. The 1 picks up the number found one column to the immediate right of Clerk.
   c. Move the cell pointer to D9.
   d. Key **@VLOOKUP(B9,$B$27.$E$30,2)**. This formula is the same except it will pick up the number found two columns to the immediate right of Clerk.
   e. Move the cell pointer to E9.
   f. Key **@VLOOKUP(B9,$B$27.$E$30,3)**.
3. Copy C9 through E9 to C10 through E19 to complete the billing rates.
4. Right align the column headings in columns C, D and E on rows 6, 7, 24 and 25.
5. Save the spreadsheet. Name your file MCPHEE.
6. Print the range A1 through E19.

Continued

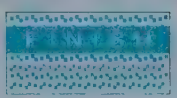
b. Use an arrow key, the Home key, or the End key to move the cursor to the character(s) to edit. Backspace erases the character to the left of the cursor and Del erases the character at the cursor.
c. After the changes have been made, press Enter.

4. Add data for column C as shown in the spreadsheet above.

5. Replace the data in column E using the data in the worksheet above.

6. Save your work. Name the file FBALL2.

7. Print the spreadsheet.



Use Vertical Lookup

Prepare a billing rate schedule for staff members at McPhee Accounting Firm.

1. Adjust the column widths as necessary and create the spreadsheet below.

	A	B	C	D	E
1	MCPHEE ACCOUNTING FIRM				
2	SAN FRANCISCO, CALIFORNIA				
3					
4		BILLING RATES PER STAFF MEMBER			
5					
6			Hourly	Daily	Weekly
7	Staff	Position	Rate	Rate	Rate
8					
9	Williams, Joel	Clerk			
10	Curry, Scott	Accountant			
11	Howry, Sierra	CPA			
12	Urlaub, Brian	CPA			
13	Hoover, Wade	Accountant			
14	Chapman, Todd	Accountant			
15	Smeltz, Ann	Accountant			
16	Rich, Jennifer	Accountant			
17	Wilson, Sara	Clerk			
18	Berryman, Mia	Clerk			
19	Pettigrew, Jill	Secretary			
20					
21					
22			Employee Charge Schedule		
23					
24			Hourly	Daily	Weekly
25		Position	Rate	Rate	Rate
26					
27		Clerk	8	64	300
28		Accountant	40	320	1500
29		CPA	60	480	2000
30		Secretary	10	80	400

Continued on Next Page

JOB 12

Move Data in a Spreadsheet

A third test has been taken in the computer class. Add this test to the spreadsheet.

1. Retrieve CLASS2.

2. Add names of additional students and extra credit points to the bottom of the spreadsheet as shown on the spreadsheet below.

	A	B	C	D	E	F
1	COMPUTER CLASS					
2						
3			Extra			
4	Student		Credit	1st	2nd	3rd
5	Name		Points	Test	Test	Test
6						
7	Allen, S.		8	82	91	95
8	Bell, W.		21	91	65	96
9	Carter, S.		2	77	82	84
10	Harrison, S.		14	62	75	77
11	Hood, B.		19	96	97	96
12	Johnson, C.		11	91	88	90
13	Anderson, B.		22	88	88	90
14	Smith, J.		9	69	78	71
15	Urlaub, S.		0			84
16	Hoover, B.		1			96

Continued on Next Page

Use the Future Value Function

Create a spreadsheet for Larry Kaebnick to show how much money he will have for his retirement fund when he retires.

1. Larry Kaebnick is 25 years old and he plans to retire at 65. Create the spreadsheet below.

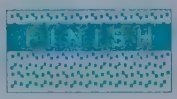
	A	B	C	D	E
1	LARRY KAEBNICK				
2	RETIREMENT FUND				
3					
4	Annual	Interest	No of		Retirement
5	Deposit	Rate	Pmts.		Value
6					
7	1000	0.06	40		

2. Use the future value function to show how much money he would have at age 65 if he invested $1,000 per year in a retirement fund.

3. Right align the column headings. Format column A for commas with 0 decimal places, column B for percent with 0 decimal places, and column E for commas with 2 decimal places.

4. Save the spreadsheet. Name your file RETIRE.

5. Print the spreadsheet.



Continued

3. Follow the instructions below to move the data in column D to column C.
   a. Place the cell pointer in the first cell to be moved, cell D3. Press / to display the main menu.
   b. Choose **M**ove.
   c. Use the arrow keys to highlight all of the data to be moved and press Enter. Remember—the Backspace key releases the cell pointer, and a period (.) anchors the cell pointer.
   d. Move the cell pointer to the first cell of the new location, cell C3, and press Enter.

4. Move column E to column D. Move column F to column E.

5. Add information for the 3rd Test in column F as shown on the spreadsheet above.

6. Edit the formula in the Total Points column (cell G7) to include the third test. Copy the formula in cell G7 to the cells G8 through G16.

7. Center the heading in column A and right align all the others.

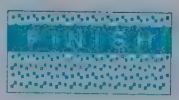
8. Save your work. Name the file CLASS3.

9. Print the spreadsheet.

1-2-3 Review

Move Data:
Place pointer in cell to be moved
Press /
Choose Move
Select data to move, press ↵
Place pointer in new location
Press ↵

Range



1-2-3 Review

■ **Use @FV:**
Key @FV(*amount, interest,time*)

2. Follow the directions below to use the future value function to show the future value of an account when you save a regular amount at rates of 5 and 6 percent for periods of 5 and 10 years.
   a. Move the cell pointer to D7.
      The future value formula is @FV(*A,I,T*). A is the amount of the periodic savings and is assumed to occur at the end of the period. I is the interest rate the savings will earn. T represents the number of payments made.
   b. Key **@FV(A7,B7,C7)**.
   c. Copy the formula to complete column D.

3. Right align the column headings. Format column A for commas with 0 decimal places, column B for percent with 0 decimal places, and column D for commas with 2 decimal places.

4. Save the spreadsheet. Name your file FUTURE.

5. Print the spreadsheet.

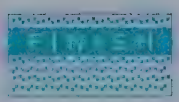
Reinforcement

The manager of International Business Corporation decides he needs full names of employees. Also, he wants a column with total miles.

1. Retrieve INTER2.
2. Use the edit key, F2, and complete the names as shown below.

	A	B
6	Allen, Sam	
7	Bell, Wilson	
8	Brown, Todd	
9	Carter, Steve	
10	Harrison, Susan	
11	Hood, Barbara	
12	Johnson, Chris	
13	Anderson, Bob	
14	Smith, Juan	
15	Stafford, Matt	
16	Low, Robert	

3. Move column G to column F.
4. Key and right align the label **Total** in cell H4. Create a formula in cell H6 to add columns E and F and copy it to H7 through H16.
5. Save your work. Name the file INTER3.
6. Print the spreadsheet.



Use the Future Value Function

Create a spreadsheet for First State Bank to show the future value of a periodic savings plan.

1. Create the spreadsheet below.

	A	B	C	D	E
1	FIRST STATE BANK				
2	FUTURE VALUE OF A PLANNED SAVINGS ACCOUNT				
3					
4		INTEREST	NO OF		
5	AMOUNT	RATE	PMTS.	VALUE	
6					
7	100	0.05	5		
8	200	0.05	5		
9	1000	0.05	5		
10	2000	0.05	5		
11					
12	100	0.05	10		
13	200	0.05	10		
14	1000	0.05	10		
15	2000	0.05	10		
16					
17	100	0.06	5		
18	200	0.06	5		
19	1000	0.06	5		
20	2000	0.06	5		
21					
22	100	0.06	10		
23	200	0.06	10		
24	1000	0.06	10		
25	2000	0.06	10		

Continued on Next Page

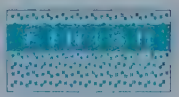
Reinforcement

The Central High School attendance record needs to be updated.

1. Retrieve CENTRAL.
2. Make additions and changes to the spreadsheet as indicated below.

	A	B	C	D	E	F	G
1	CENTRAL HIGH SCHOOL ATTENDANCE RECORDS						
2	BUSINESS DEPARTMENT						
3							
4	Name of Student			Id. No.		Days Absent	
5							
6	Johnson, Julie			24023		13	
7	Loman, Cissy			34004		3	
8	Phillips, Terry			25340		7	
9	Harrison, Mary			40042		4	
10	Thompson, Bonnie			23404		1	
11	Woods, Joe			42234		0	
12	Stafford, Shawn			34044		13	
13	Anderson, Lynn			22343		5	
14	Moore, Steve			40442		18	
15	Smith, Chad			34340		16	
16	Wood, Nathan			23434		1	
17	Pryor, Brie			34040		2	
18	Young, Julie			22343		0	
19	Collins, Susan			34410		0	
20	Jackson, Leslie			23244		1	

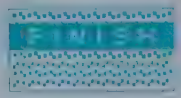
3. Right align the column heading, Id. No.
4. Save your work. Name the file CENTRAL2.
5. Print the spreadsheet.



Create an Amortization Table

Susan Hart has found another lending institution that will lend her the money for her new room at 5%. This institution is Home Remodeling, Inc. She would like to revise the amortization table and extend the loan for 30 months to get a lower payment.

1. Retrieve HART.
2. Edit cells A3, D7 and D8 to show the information described above.
3. Use data fill to complete the Pmt. No. on rows 42 through 47.
4. Copy B41 through E41 to B42 through E47.
5. Save the spreadsheet. Name your file HART2.
6. Print the spreadsheet.



Erase a Range of Cells

The inventory list needs to be updated.

1. Retrieve SOFT2.

2. Follow the directions below to erase all four tax programs (A21 through F24).
   a. Place the cell pointer in the first cell to be erased.
   b. Press / to display the main menu.
   c. Choose **R**ange, **E**rase.
   d. Use the arrow keys to highlight the range of data to be erased and press Enter.

3. Move rows 25, 26 and 27 up to rows 21, 22 and 23.

4. Some of the costs and inventories have changed. Make changes as indicated on the next page. Check the formula—it has been automatically updated.

1-2-3 Review

- **Erase a Range:**
  Place pointer in cell to be erased
  Press /
  Choose **R**ange, **E**rase
  Select range of data
  Press ↵

Range

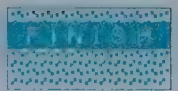
Continued on Next Page

5. Copy B18 to B19 through B41 for payments 2 through 24.
6. Move the cell pointer to C18 and key **+E17*$D$7/12** (absolute reference) to get the Int. for the first payment.
7. Move the cell pointer to D18 and key **+B18-C18** to get the Prin. Amort. for the first payment.
8. Move the cell pointer to E18 and key **+E17-D18** to get the remaining balance after the first payment.
9. Copy C18 through E18 to C19 through E41 to complete the amortization table.
10. Format D6 for currency with 0 decimal places.
11. Format D7 for percent with 0 decimal places.
12. Format B10 through E41 for commas with 2 decimal places.
13. Save the spreadsheet. Name your file HART.
14. Print the spreadsheet.

	A	B	C	D
4	Program		Cost	Inventory
5				
6	Sports		18.95	8
7	Religion		14.95	21
8	Holidays		14.95	18
9	Borders & Boxes		34.95	102
10	Cartoons		29.95	36
11	Cartoons II		39.95	49
12	Business I		29.95	65
13	Business II		39.95	23
14	Business III		39.95	45
15	Calendar Creator		49.95	24
16	Organizer		29.95	77
17	Label Creator		49.95	106
18	Paint Power		99.95	22
19	Time Manager		14.95	46
20	Schedule Creator		19.95	24
21	Careers		49.95	14
22	DOS Tutor		29.95	88
23	Utilities		29.95	26

5. Save your work. Name the file SOFT3.

6. Print the spreadsheet.



Create an Amortization Table

Susan Hart is adding a room to her house. She will borrow the money for this addition from the First State Bank. Create a spreadsheet with an amortization table for her.

1. Create the spreadsheet below.

	A	B	C	D	E
1	SUSAN HART				
2	Financing for Room Addition				
3	First State Bank				
4					
5	**********	**********	**********	**********	**********
6	Loan Principal			20500	
7	Annual Interest Rate			0.07	
8	Number of Monthly Payments			24	
9	**********	**********	**********	**********	**********
10	Monthly payment will be				
11					
12	Amortization Table				
13					
14					
15	Pmt.			Prin.	Prin.
16	No.	Pmt.	Int.	Amort.	Bal.
17					20500

2. Move the cell pointer to D10 and calculate the monthly payment by keying the @PMT formula: @PMT(*cell address of the principal, cell address of the interest rate*/12, *cell address of the number of months*).

3. Use the data fill function to enter Pmt. No. 1 to 24 in cells A18 through A41.

4. Move the cell pointer to B18 and key **+$D$10** (absolute reference) for the first payment.

Continued on Next Page

Reinforcement

Prepare an inventory of hi-tech equipment for Wilson Jones.

1. Create the spreadsheet below.

	A	B	C	D	E	F	G	H	I
1	WILSON JONES AND COMPANY								
2	HI-TECH EQUIPMENT INVENTORY LIST								
3	DEC., 19--								
4									
5	ITEM	ITEM			SERIAL	PURCHASE			SERVICE/
6	NO.	NAME		MANUF.	NO.	DATE	DEPT.	COST	REPAIRS
7									
8	TY01	Typewriter		US Bus.	4886-A43	88/11/12	Sales	680	EZ Repair
9	TY02	Typewriter		US Bus.	9987-A06	88/11/12	Sales	680	EZ Repair
10	TY03	Typewriter		Echo	8687-A44	89/09/01	Sales	700	EZ Repair
11	TY04	Typewriter		Eclin	5866-A09	89/10/10	Admin.	660	EZ Repair
12	CO01	Computer		Exec.	Z7104 BB	90/12/01	Sales	1840	Options
13	CO02	Computer		Exec.	Z7223 BC	90/12/01	Sales	1840	Options
14	CO03	Computer		Exec.	Z7224 BC	90/12/01	Prod.	2100	Options
15	CO04	Computer		Pack	Z7227 BB	91/07/12	Prod.	2400	Options
16	CO05	Computer		Pack	Z7810 BB	91/07/12	Admin.	2400	Options
17	MO01	Modem		Echo	TT/0943	92/10/01	Sales	640	Tops Repair
18	MO02	Modem		Echo	TT/0944	92/10/01	Admin.	640	Tops Repair
19	PR01	DM Printer		Express	SSS804	90/12/01	Sales	410	Options
20	PR02	DM Printer		Express	SSS805	90/12/01	Sales	410	Options
21	PR03	DM Printer		Express	SSS806	90/12/01	Prod.	410	Options
22	PR04	L Printer		Express	SDM107	93/01/11	Admin.	1200	Options
23	CP01	Copier		Pro Copy	T7778436	93/01/01	Admin.	800	Pro Copy
24	CP02	Copier		Pro Copy	T7778437	93/01/10	Admin.	1100	Pro Copy
25	CA01	Calculator		OCC Cal	X104	89/10/01	Sales	110	EZ Repair
26	CA02	Calculator		OCC Cal	X105	89/10/01	Sales	110	EZ Repair
27	CA03	Calculator		OCC Cal	X106	89/10/01	Prod.	110	EZ Repair
28	CA04	Calculator		Biz	WWW-428	93/01/01	Prod.	80	EZ Repair
29	CA05	Calculator		Biz	WWW-429	93/01/01	Admin.	80	EZ Repair
30	CH01	Check Protector		Protect	CHP21	86/03/20	Admin.	140	Deltacorp
31	DI01	Dictating Machine		Ace Co.	M-201	86/04/26	Admin.	485	Teleco

2. Save your work. Name the file WILSON.

3. This spreadsheet will be printed in another lesson.

Use Data Fill

Westcox, Inc. wants you to add employee numbers to their spreadsheet.

1. Retrieve WESTCOX.
2. Insert one column to the left of what is now column A.
3. Move the titles on rows 1, 2 and 3 to column A.
4. Center the column heading **Employee** in cell A5 and **Number** in A6. If Wysiwyg is available, bold print these headings.
5. Use the data fill feature to enter the employee numbers. Start with number 1000 and increase by 100.
6. Save the spreadsheet. Name your file WESTCOX6.
7. Print the spreadsheet.

CHAPTER 3

Jobs 17—47
Changing Formats

Time Estimate: 4 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Change the column width
2. Globally change the column width
3. Center a cell or a range of cells
4. Left align a cell or a range of cells
5. Right align a cell or a range of cells
6. Format a cell or a range of cells for decimals
7. Globally format a spreadsheet for decimals
8. Format a cell or a range of cells for commas
9. Globally format a spreadsheet for commas
10. Format a cell or a range of cells for currency
11. Format a cell or a range of cells for percent
12. Format a range of cells for a +/- graph
13. Create lines

28			Biology, Advanced		German I
29			Business Computer		German II
30			Business Math		German III
31			Chemistry I		Keyboarding
32			Child Development		Library Science
33			College Algebra/Trig.		Mass Communications
34			Competitive Athletics		Mixed Chorus
35			Computer Science I		Music Theory
36			Computer Science II		Photography
37			Crafts		Pre-Algebra
38			Debate		Shop
39			Drafting		Spanish I
40			Drama		Spanish II
41			Driver Education		Spanish III
42			English II		Speech

2. Use the data fill feature to enter class numbers in cell range B16 through B42 (start, 100; step, 5; stop, Enter) and cell range D16 through D42 (start, 235; step, 5; stop, Enter).

3. If Wysiwyg is available, bold print rows 1, 2, 4, 6, 12, 14 and 15.

4. Save the spreadsheet. Name your file WOODROW.

5. Print the spreadsheet.

Change the Column Width

The default column width is nine characters. If a label is more than nine characters, the data will overflow to the cell to the right if the cell is empty. If the cell to the right is not empty, the data will be cut off after nine characters. A value that is too large for a cell will show asterisks (*********) instead of the value. To show the value in the cell, the column width must be increased.

Columns can be from 1 to 240 spaces wide. Column widths can be changed individually or globally. If the width is adjusted individually, only the specified column will change. If the width is adjusted globally, all the columns will change. When making changes to column widths, global commands should be given first since global commands take precedence over individual column commands.

Prepare a list of accounts receivable for Sanders' Clothiers.

1. Follow the instructions below to individually change the width of column A to 25 spaces, column B to 35 spaces, and column C to 11 spaces.
   a. Move the cell pointer to the column that needs to be changed.
   b. Press /.
   c. Choose **W**orksheet, **C**olumn, **S**et-Width.
   d. Key the number for the desired width and press Enter.

      or

      Press the right or left arrow key until the desired width is reached.

1-2-3 Review

Change the Column Width:

Place pointer in column to change
Press /
Choose **W**orksheet, **C**olumn, **S**et-Width
Key number or use arrow keys

2. Key the information on the following page in your spreadsheet. For this job, do not format the column headings. Key as shown.

Continued on Next Page

Use Data Fill

Create a spreadsheet for Woodrow Wilson High School with the course requirements and the courses available to all students.

1. Adjust the column widths as necessary and create the spreadsheet below.

	A	B	C	D	E
1	WOODROW WILSON HIGH SCHOOL				
2	JACKSONVILLE, FLORIDA				
3					
4	SOPHOMORE		JUNIOR		SENIOR
5					
6	Required Classes		Required Classes		Required Classes
7	English II		English III		English IV
8	Math Class		American History		
9	Biology				
10	Geography				
11					
12	Each student must choose six classes from the list below.				
13					
14		Class	Class	Class	Class
15		No.	Name	No.	Name
16			Accounting I		English III
17			Accounting II		English IV
18			Algebra I		Family Living
19			Algebra II		Fashion Design
20			Algebra II, Honors		Foods
21			American History		French I
22			Art I		French II
23			Art II		French III
24			Art III		General Business
25			Bachelor Living		Geography
26			Band		Geometry
27			Biology		Geometry, Honors

Continued on Next Page

	A	B	C
1	SANDERS' CLOTHIERS		
2	ACCOUNTS RECEIVABLE		
3			
4			ACCOUNT
5	CUSTOMER	ADDRESS	BALANCE
6			
7	Black and Associates	1818 Lindsey Dr., Denton, TX	2999.88
8	Denim Specialties	1522 Whispering, Dallas, TX	3000.25
9	Dick Cope Clothiers	1233 Lake Dr., San Francisco, CA	10003.25
10	Jean's Wear	1322 Darby Drive, Ardmore, OK	11500.89
11	Lake Wood, Inc.	1223 Harding Drive, Denver, CO	3777.91

3. When the spreadsheet is complete, save your work. Name the file SANDERS.

4. Print the spreadsheet.

Use Data Fill

Outstanding Video NetWork wants to keep a list of the number of packages they have available. Use the data fill feature to number these items.

1. Retrieve TAPES5.

2. Center the column heading, **Package No**, in cells G6 and G7.

3. Move the cell pointer to G9 and follow the directions below to use the data fill feature.
   a. Press /.
   b. Choose **D**ata, **F**ill.
   c. **Enter fill range** appears. Highlight or key G9 through G47 and press Enter.
   d. **Start** appears. Key 1 for the first fill number.
   e. **Step** appears. Press Enter to accept the default (each number increases by one).
   f. **Stop** appears. Press Enter to accept the default. Numbers will appear only through the range designated in step c above.

1-2-3 Review

- **Data Fill:**
  Press /
  Choose **D**ata, **F**ill
  Key range
  Key first fill number
  Key increase number
  Press ↵ to accept default

4. You should have numbers 1 through 39 in the fill range. Save the spreadsheet. Name your file TAPES6.

5. Print A1 through G47.

FINISH

Reinforcement

Mr. Fischer needs a second-quarter report on the sales of new and used cars.

1. Change the width of column A to 21 spaces and column D to 11 spaces.
2. Enter the information below in your spreadsheet. Center each region heading as shown.

	A	B	C	D
1	FISCHER AUTO ENTERPRISES			
2	CAR SALES, SECOND QUARTER			
3				
4	EASTERN REGION:			
5	New Cars			1777883.23
6	Used Cars			777322.22
7				
8	WESTERN REGION:			
9	New Cars			1654328.89
10	Used Cars			445768.99
11				
12	NORTHERN REGION:			
13	New Cars			2345342.88
14	Used Cars			755233.77
15				
16	SOUTHERN REGION:			
17	New Cars			1112334.88
18	Used Cars			655288.98

3. When the spreadsheet is complete, save your work. Name the file AUTO.
4. Print the spreadsheet.

5. Determine the Net Amount Due in column J (Net Price - Cash Discount).
6. Format the appropriate columns for fixed format with 2 decimal places.
7. Format column F for percent with 0 decimals.
8. Save the spreadsheet. Name the file BUTLER.
9. Print the spreadsheet.

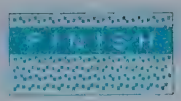
Reinforcement

Wintersmith Insurance needs a claims report for January.

1. Change the width of column A to 20 spaces and column B and D to 10 spaces.
2. Key the information below in your spreadsheet. For this job, do not format headings.

	A	B	C	D
1	WINTERSMITH INSURANCE COMPANY			
2	CLAIMS FILED FOR JANUARY, 19--			
3				
4		No. of		Average
5	Location	Claims Filed		Cost/Claim
6				
7	Atlanta, GA	2400		550.87
8	Oklahoma City, OK	918		546.66
9	Tulsa, OK	821		668.93
10	Dallas, TX	3456		567.99
11	Austin, TX	998		439.99
12	Denver, CO	968		588.45
13	Kansas City, KS	3324		548.97

3. When the spreadsheet is complete, save your work. Name the file CLAIM.
4. Print the spreadsheet.



Use the @IF Function

Create a report for Butler Manufacturing Company to determine which of their customers will receive a cash discount. Butler Manufacturing allows a 2% cash discount if the invoice is paid within 10 days.

1. Center the column headings and create the spreadsheet below.

	A	B	C	D	E	F	G	H	I	J
1	BUTLER MANUFACTURING									
2	INVOICE PAYMENT SCHEDULE									
3										
4	Account	Date of	Date of	Payment	Amount of	Trade	Amount of	Net	Cash	Net Amount
5	Number	Invoice	Payment	Period	Invoice	Discount	Trade Dis.	Price	Discount	Due
6										
7	AA5678	1/04/94	1/14/94	10	985.45	0.15				
8	QR7856	1/04/94	1/31/94	27	1222.55	0.2				
9	LN6545	1/07/94	1/10/94	3	456.98	0.1				
10	AR5257	1/07/94	1/28/94	21	2223.25	0.25				
11	AB6545	1/10/94	1/15/94	5	888.52	0.15				
12	CC4325	1/10/94	1/20/94	10	1222.36	0.2				
13	JJ1239	1/11/94	1/28/94	17	989.52	0.15				
14	JK5678	1/11/94	1/26/94	15	1256.88	0.2				
15	JJ4587	1/14/94	1/20/94	6	852.26	0.15				
16	JK2345	1/17/94	1/31/94	14	456.77	0.1				
17	JJ6545	1/20/94	1/25/94	5	1886.67	0.2				
18	AA3478	1/24/94	1/31/94	7	978.88	0.15				
19	JJ7788	1/28/94	2/04/94	7	2322.25	0.25				

2. Determine the Amount of Trade Discount in column G. (Multiply Amount of Invoice by Trade Discount.)

3. Determine the Net Price in Column H (Amount of Invoice - Amount of Trade Discount).

4. Use an @IF function to determine the Cash Discount in column I. The customer receives a 2% cash discount if the invoice is paid within 10 days. If the invoice is paid after 10 days, a 0 should appear. The formula will be @IF(D7<=10,H7*2%,0).

Continued on Next Page

Globally Change the Column Width

Prepare an earnings record for Jerry Hammond.

1. Follow the instructions below to globally change the column widths to 12.
   a. Press /.
   b. Choose **W**orksheet, **G**lobal, **C**olumn-Width.
   c. Key **12** and press Enter.

   or

   Press the right or left arrow key until you reach 12.

2. Key the information below in your spreadsheet. For this job, do not format the column headings.

1-2-3 Review

Globally Change Column Width:

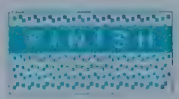
Choose Worksheet, Global, Column-Width
Key a number or use arrow keys

	A	B	C	D
1	JERRY HAMMOND'S EARNINGS			
2	PAY PERIOD FOR APRIL-JULY			
3				
4	Pay Period			
5	Ended	Bimonthly	Overtime	Total
6				
7	4/15	650	19.55	
8	4/30	650	9.75	
9	5/15	650	30.35	
10	5/31	650	19.55	
11	6/15	715	48.75	
12	6/30	715	9.75	
13	7/15	715	39.25	
14	7/31	715	30.75	

3. Key a formula to add columns B and C to get the amount for the Total column. Use Copy to repeat the formula for the other cells in column D.

4. When the spreadsheet is complete, save your work. Name the file EARN.

5. Print the spreadsheet.



Use the @IF Function

Young's Video needs a report of accounts that are more than 30 days past due. If the account is more than 30 days past due, a 1.5% service charge is applied to the unpaid balance. Prepare a report to indicate which customers owe a service charge.

1. Center the column headings and create the spreadsheet below.

	A	B	C	D
1	Young's Video			
2	Schedule of Accounts Receivable			
3				
4		Account	Days	Service
5	Customer Name	Balance	Overdue	Charge
6				
7	Jacobs, Inc.	1452.25	31	
8	Creative Video	3235.26	10	
9	Horn and Company	999.65	35	
10	Medford Corporation	458.52	8	
11	Crestview, Inc.	1256.88	15	
12	Abbott and Associates	3256.85	10	
13	Taylor Interiors	1259.75	32	
14	King Storage	2352.25	60	
15	McPhee Enterprises	1235.45	33	

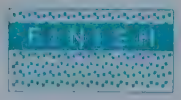
2. Prepare an @IF statement in cell D7 to compute a 1.5% service charge on the Account Balance of all accounts that are more than 30 days past due. If the time is less than 30 days, a 0 should appear.

3. Copy the formula to complete column D.

4. Format column D for fixed format with 2 decimal places.

5. Save the spreadsheet. Name the file YOUNG.

6. Print the spreadsheet.



Reinforcement

Prepare a payroll register for Floyd's Department Store for the month of March.

1. Globally change the column widths to 10 spaces.
2. Key the information below in your spreadsheet. For this job, do not format column headings.

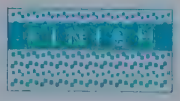
	A	B	C	D
1	FLOYD'S DEPARTMENT STORE			
2	PAYROLL REGISTER FOR MARCH			
3				
4	Employee			
5	Name		Regular	Overtime
6				
7	Allen, S.		484	10.55
8	Weeks, M.		374	12.75
9	Andrew, T.		506	15.55
10	Floyd, K.		850	20.25
11	Jones, G.		462	8.85
12	Cobb, E.		466	12.25

3. When the spreadsheet is complete, save your work. Name the file FLOYD.
4. Print the spreadsheet.

1-2-3 Review

- **Use @IF:**
  Key @IF(*Condition, Condition true, Condition false*)

6. Follow the directions below to enter an @IF statement in column H to determine if the students are eligible or ineligible.
   a. Move the cell pointer to H7.
      The @IF function causes the program to look at the content of the designated cell to see if a condition is met.
   b. Key **@IF(G7<60,"INELIGIBLE","ELIGIBLE")**. If the value in cell G7 is less than 60, the computer program will enter INELIGIBLE. Otherwise, it will enter ELIGIBLE. In order for the words INELIGIBLE and ELIGIBLE to print in the cell, you must enter quotation marks before and after each word.
   c. Copy the formula to complete the column.
7. Save your spreadsheet. Name the file GRADES.
8. Sort the spreadsheet, using Average as the primary key, in descending order.
9. Resave your spreadsheet as GRADES.
10. Print the spreadsheet.



JOB 22

Center a Cell or a Range of Cells

1. Retrieve CLAIM.

2. Add a label for **Total** in F4 and **Cost** in F5. Key a formula to multiply No. of Claims Filed by Average Cost/Claim to get the Total Cost in column F.

3. Follow the instructions below to center the column headings.
   a. Move the cell pointer to A4.
   b. Press /.
   c. Choose **R**ange, **L**abel, **C**enter.
   d. Highlight or key A4 through F5 and press Enter.

4. When the spreadsheet is complete, save your work. Name the file CLAIM2.

5. Print the spreadsheet.

1-2-3 Review

Change Cell Alignment:

Place pointer in cell to be changed
Press /
Choose **R**ange, **L**abel
Choose **L**eft, **R**ight or **C**enter
Press ↵ or
Select range and press ↵

Range

Use the @IF Function

Each week Mrs. Bearden must prepare a report to determine which students can participate in extracurricular activities at her school. A student is considered ineligible if he/she has below a 60% average. Prepare an eligibility report to determine if the student is eligible or ineligible.

1. Adjust the column widths as necessary and create the spreadsheet below.

	A	B	C	D	E	F	G	H
1	Algebra I							
2	Current Grades							
3								
4						Total		
5	Student Name	Test 1	Test 2	Test 3	Test 4	Points	Average	Status
6								
7	Wright, Charles	48	52	62	58			
8	Wells, Terry	92	75	88	75			
9	Dean, Derick	52	58	69	52			
10	Mason, DeAnn	88	77	68	71			
11	Briggs, Larry	78	82	64	61			
12	Vaughn, Kristi	82	91	85	88			
13	Walbrick, T.K.	85	89	92	95			
14	Boatwright, Brent	84	78	72	88			
15	Thompson, Eddie	52	62	58	61			
16	Criswell, Thomas	82	83	88	85			
17	Tracy, Chae	88	92	94	91			
18	Stafford, Allison	98	95	93	97			

2. Right align the headings in columns B through H.
3. Format the entire spreadsheet for fixed with 0 decimal places.
4. Determine the Total Points in column F.
5. Determine the Average in column G.

Continued on Next Page

Left Align a Cell or a Range of Cells

1. Retrieve AUTO.

2. Follow the instructions below to left align the data in cells A4, A8, A12 and A16.
   a. Move the cell pointer to the first cell to be left aligned.
   b. Press /.
   c. Choose **R**ange, **L**abel, **L**eft.
   d. Press Enter to left align a single cell.

   or

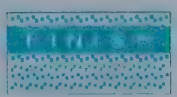
   Use the arrow keys to highlight the range of cells to be left aligned and then press Enter.

1-2-3 Review

Range

3. Save your work. Name the file AUTO2.

4. Print the spreadsheet.



Use a Master Spreadsheet with Formulas

Tipton Graphics recently purchased a new photocopy machine on January 4, 1994. Using the master spreadsheet, determine the annual depreciation.

1. Retrieve DEPR.
2. Starting in cell D4, enter the following information:

```
Photocopy Machine
15500
1994
2500
```

3. Save the spreadsheet. Name the file DEPR2.
4. Print the spreadsheet.

Right Align a Cell or a Range of Cells

1. Retrieve EARN.

2. Follow the instructions below to right align the column headings in columns B, C and D.
   a. Move the cell pointer to the first cell to be right aligned.
   b. Press /.
   c. Choose **R**ange, **L**abel, **R**ight.
   d. Press Enter to right align a single cell.

   or

   Use the arrow keys to highlight the range of cells to be right aligned and then press Enter.

1-2-3 Review

Range

3. Center the heading and data in column A.

4. Save your work. Name the file EARN2.

5. Print the spreadsheet.

2. If Wysiwyg is available, bold print the data in cells A1 through A9.
3. Center the column headings on rows 12 and 13.
4. Copy the formula in cell A16 to cells A17 through A19.
5. Copy the formula in cell B15 to cells B16 through B19.
6. Copy the formula in cell C16 to cells C17 through C19.
7. Copy the formula in cell D15 to cells D16 through D19.
8. Format cells D5, D8 and D9 for commas with 0 decimal places.
9. Format cells B15 through D19 for commas with 0 decimal places.
10. Save the spreadsheet. Name the file DEPR.

Format a Cell or a Range of Cells for Decimals

Prepare an employee record for West Real Estate and Auction.

1. Change the column widths as follows:
   column D - 3 spaces column F - 3 spaces
   column E - 12 spaces column G - 10 spaces

2. Key the information below in your spreadsheet.

	A	B	C	D	E	F	G
1	WEST REAL ESTATE AND AUCTION						
2	REGIONAL EMPLOYEE RECORDS						
3							
4	LAST	FIRST	WAGE		DEPARTMENT		LOCATION
5							
6	McFarlane	Ben	10.2		Accounting		Amarillo
7	Melton	Amy	10.95		Accounting		Houston
8	Fischer	Barbara	9.05		Sales		Houston
9	Brown	John	12.2		Sales		Dallas
10	Rhoads	Kurt	11.55		Accounting		Dallas
11	Cassell	Ed	10.5		Advertising		Dallas
12	Farmer	John	10.25		Sales		Amarillo
13	Fleming	Kay	9.95		Accounting		Dallas
14	Albright	Kari	9.75		Advertising		Houston
15	Cannon	Lindsey	10.25		Advertising		Amarillo

3. Follow the instructions below to format cells C6, C9 and C11 for fixed format with 2 decimal places.
   a. Move the cell pointer to the cell to be formatted.
   b. Press /.
   c. Choose **R**ange, **F**ormat, **F**ixed.
   d. Key 2 and press Enter.
   e. Press Enter to format a single cell.

1-2-3 Review

- **Format Cell/Cells:**
  Place pointer in cell to be formatted
  Press /
  Choose **R**ange, **F**ormat
  Select format type and number of decimal places
  Press ↵ or
  Select range and press ↵

Continued on Next Page

Create a Master Spreadsheet with Formulas

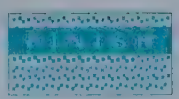
Tipton Graphics needs a depreciation schedule to determine the annual depreciation on equipment purchased if the useful life is five years.

1. Create the master spreadsheet below. Enter the formulas as shown.

	A	B	C	D
1	TIPTON GRAPHICS			
2	DEPRECIATION SCHEDULE			
3				
4	ASSET			
5	ORIGINAL COST			
6	YEAR ACQUIRED			
7	USEFUL LIFE			5
8	SALVAGE VALUE			
9	ANNUAL DEPRECIATION			(+D5-D8)/D7
10				
11	**********	**********	**********	**********
12		ANNUAL	ACCUM	BOOK
13	YEAR	DEPR.	DEPR.	VALUE
14	**********	**********	**********	**********
15	+D6	+$D$9	+B15	+$D$5-C15
16	+A15+1		+C15+B16	
17				
18				
19				

Continued on Next Page

4. Center all column headings.
5. When the spreadsheet is complete, save your work. Name the file WEST.
6. Print the spreadsheet.



Use a Master Spreadsheet with Formulas

Cunningham Furniture needs a Balance Sheet for December, 19--.

1. Retrieve BALANCE.
2. Starting in cell D6, enter the amounts ONLY under Assets.

Cash	7650
Accounts Receivable	15777
Merchandise Inventory	82374
Supplies	840
Prepaid Insurance	525

3. In cell E15, enter the amount **15955** for Accounts Payable.
4. In cell E18, enter the amount **91211** for Roger Cunningham, Capital.
5. Save the spreadsheet. Name the file BALANCE2.
6. Print the spreadsheet.

Reinforcement

Floyd's Department Store needs to determine the total pay for each employee.

1. Retrieve FLOYD.
2. Add a label for **Total** in E5. Key a formula to add the Regular and Overtime pay in column E.
3. Format columns C, D and E for fixed format with 2 decimal places.
4. Center the heading for column A. Right align the headings for columns C, D and E.
5. Save your work. Name the file FLOYD2.
6. Print the spreadsheet.

2. If Wysiwyg is available, bold print the heading and the information in cells A5, A12, A14, A17 and A20.
3. Enter the formula **@SUM(D6.D10)** in cell E12 to compute the Total Assets.
4. Enter the formula **+E15+E18** in cell E20 to compute the Total Liabilities and Capital.
5. Format the entire spreadsheet for currency with 2 decimal places.
6. Save the spreadsheet. Name the file BALANCE.

Globally Format a Spreadsheet

Use a spreadsheet to prepare a stock analysis.

1. Globally change column widths to 8.
2. Center the column headings and key the information below.

	A	B	C	D
1	STOCK ANALYSIS			
2	PRICE PER SHARE			
3				
4	Date	OSA	MNR	TWA
5				
6	Jan 9	29.75	12.25	75.55
7	Jan 16	32.46	15.25	70.25
8	Jan 23	38.8	20.85	50.25
9	Jan 30	44.25	25.23	35.45

3. Follow the instructions below to format the entire spreadsheet for fixed format with 2 decimal places.
   a. Press /.
   b. Choose **W**orksheet, **G**lobal, **F**ormat, **F**ixed.
   c. Key **2** and press Enter.
4. When the spreadsheet is complete, save your work. Name the file STOCK.
5. Print the spreadsheet.

1-2-3 Review

Globally Format a Spreadsheet:

Press /
Choose **W**orksheet, **G**lobal, **F**ormat
Select format type and number of decimal places
Press ↵

FINISH

Create a Master Spreadsheet with Formulas

Cunningham Furniture prepares a balance sheet for each month of the year. Prepare a master spreadsheet showing the Assets, Liabilities, Capital, and Total Liabilities and Capital.

1. Create the master spreadsheet below.

	A	B	C	D	E	F
1	CUNNINGHAM FURNITURE					
2	BALANCE SHEET					
3	For the Month of:					
4						
5	ASSETS:					
6	Cash					
7	Accounts Receivable					
8	Merchandise Inventory					
9	Supplies					
10	Prepaid Insurance					
11						
12	TOTAL ASSETS:				@SUM(D6.D10)	
13						
14	LIABILITIES:					
15	Accounts Payable					
16						
17	CAPITAL:					
18	Roger Cunningham, Capital					
19						
20	TOTAL LIABILITIES AND CAPITAL				+E15+E18	

Continued on Next Page

Format a Cell or a Range of Cells for Commas

1. Retrieve CLAIM2.

2. Follow the instructions below to format cells B7, B10 and B13 for commas with 0 decimal places.
   a. Move the cell pointer to the cell to be formatted.
   b. Press /.
   c. Choose **R**ange, **F**ormat, , (comma).
   d. Key **0** and press Enter.
   e. Press Enter to format a single cell.

   or

   Use the arrow keys to highlight the range of cells to be formatted and then press Enter.

1-2-3 Review

Range

0,0

3. Format column F for commas with 0 decimal places.

4. Save your work. Name the file CLAIM3.

5. Print the spreadsheet.

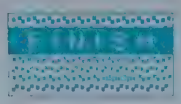
Use a Master Spreadsheet

The Dance Studio recently hired Melissa Laramore. Retrieve the master spreadsheet to complete the Employee Withholding Information.

1. Retrieve INFOR.
2. Starting in cell D4, enter the following information beside each heading.

```
Melissa Laramore
923 Broadway
Miami
FL
33101-9820
442-54-7777
Single
1
```

3. Save the spreadsheet. Name the file INFOR2.
4. Print the spreadsheet.



Reinforcement

1. Retrieve SANDERS.
2. Follow the instructions from the previous job to format column C for commas with 2 decimal places.
3. Save your work. Name the file SANDERS2.
4. Print the spreadsheet.

Create a Master Spreadsheet

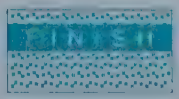
The Dance Studio must keep employee withholding information on their employees. Prepare a form for this purpose.

1. Create the master spreadsheet below.

	A	B	C	D	E
1	THE DANCE STUDIO				
2	EMPLOYEE WITHHOLDING INFORMATION				
3					
4	Employee Name:				
5	Home Address:				
6	City:				
7	State:				
8	ZIP Code:				
9	Social Security No.:				
10	Marital Status:				
11	No. of Allowances Claimed:				

2. If Wysiwyg is available, bold print all the data.

3. Save the spreadsheet. Name the file INFOR.



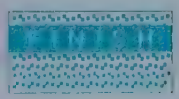
Globally Format a Spreadsheet for Commas

1. Retrieve AUTO2.

2. Follow the instructions below to format the entire spreadsheet for commas with 2 decimal places.
   a. Press /.
   b. Choose **W**orksheet, **G**lobal, **F**ormat, , (comma).
   c. Key **2** and press Enter.

3. Save your work. Name the file AUTO3.

4. Print the spreadsheet.



Use a Master Spreadsheet

The Johnson Agency recently hired Jason Johnson. Retrieve the master spreadsheet and complete the needed information for the employee file.

1. Retrieve RECORD.

2. Starting in cell D4, enter the following information beside each heading:

```
Jason Johnson
322 Northcrest Drive
Cincinnati
OH
(513) 555-7892
443-89-6666
04/29/73
Accountant
Full Time
$32,500
02/04/--
```

3. Save the spreadsheet. Name the file RECORD2.

4. Print the spreadsheet.

Format a Cell or a Range of Cells for Currency

Prepare an interest table for the First State Bank.

1. Change the column widths as follows:
   column A - 6 spaces column C - 8 spaces
   column B - 12 spaces column D - 8 spaces

2. Center the column headings and key the information below in your spreadsheet. It is not necessary to key the leading zeroes in column C.

	A	B	C	D	E
1	FIRST STATE BANK				
2	INTEREST COMPUTATION TABLE				
3					
4	Loan		Interest	Time	Interest
5	No.	Principal	Rate	(Days)	Due
6					
7	1	10400	0.125	360	
8	2	5500	0.088	720	
9	3	11650	0.105	720	
10	4	3300	0.133	90	
11	5	2800	0.095	90	
12	6	19000	0.185	720	
13	7	23000	0.21	720	
14	8	6600	0.125	360	
15	9	8876	0.125	360	
16	10	500	0.085	30	
17	11	750	0.085	60	
18	12	3400	0.105	180	
19	13	3000	0.103	180	
20	14	7500	0.12	360	
21	15	15000	0.175	390	

3. Key a formula to calculate the Interest Due in column E (B7*C7*D7/365).

Continued on Next Page

Create a Master Spreadsheet

The Johnson Agency needs an employment form to keep personal data for each employee.

1. Create the master spreadsheet below.

	A	B	C	D	E
1	THE JOHNSON AGENCY				
2	EMPLOYMENT RECORD				
3					
4	Employee Name:				
5	Employee Address:				
6	City:				
7	State:				
8	Telephone No.:				
9	Social Security No.:				
10	Date of Birth:				
11					
12	Position:				
13	Status:				
14	Starting Salary:				
15	Date Employed:				

2. If Wysiwyg is available, bold print all the data.

3. Save the spreadsheet. Name the file RECORD.

Continued

4. Format columns B and E for commas with 2 decimal places. Format column C for fixed format with 3 decimal places.

5. Follow the instructions below to format cells B7 and E7 for currency with 2 decimal places.
   a. Move the cell pointer to the cell to be formatted.
   b. Press /.
   c. Choose **R**ange, **F**ormat, **C**urrency.
   d. Key **2** and press Enter.
   e. Press Enter to format a single cell.

   or

   Use the arrow keys to highlight the range of cells to be formatted and then press Enter.

1-2-3 Review

Range

6. When the spreadsheet is complete, save your work. Name the file FIRST.

7. Print the spreadsheet.

CHAPTER 10

Jobs 137—165 Miscellaneous

Time Estimate: 7 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Create and use a master spreadsheet
2. Use the @IF function
3. Use the Data Fill function
4. Create an amortization table
5. Use the @FV function
6. Use the @VLOOKUP function
7. Use the @HLOOKUP function
8. Format with shading

Reinforcement

American Securities, Inc. needs a list of commissions earned by each broker.

1. Change the column widths as follows:
   column A - 12 spaces column D - 10 spaces
   column B - 7 spaces column E - 3 spaces
   column C - 3 spaces column F - 10 spaces

2. Center the column headings and key the information below in your spreadsheet.

	A	B	C	D	E	F	G
1	AMERICAN SECURITIES, INC.						
2	COMMISSION REPORT						
3							
4				RATE OF		COMMISSION	
5	BROKER	SALES		COMMISSION		AMOUNT	
6							
7	Woods, P.	12344		0.03			
8	Younts, S.	18344		0.03			
9	Moss, K.	44233		0.03			
10	Nicols, R.	21343		0.03			
11	Cowan, M.	22444		0.03			
12	Myers, K.	29960		0.03			
13	Jacobs, L.	8321		0.03			

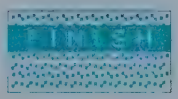
3. Format column B for commas with 0 decimal places.

4. Key a formula to multiply Sales times the Rate of Commission to determine the Commission Amount for column F.

5. Format column F for currency with 2 decimal places.

6. When the spreadsheet is complete, save your work. Name the file COMM.

7. Print the spreadsheet.



Narrative Reinforcement

Compile a list of your friends and family (include at least 15 names). Include first and last names, sex, age and month of birth. Alphabetize the list according to the last name and then the first name. Save the spreadsheet as FAMILY. Extract the records for each month of the year to determine who has a birthday during that month. Save each spreadsheet according to the month of the year (JAN, FEB, etc.). If no one was born in a particular month, do not save the spreadsheet. Print the spreadsheet.

Format a Cell or a Range of Cells for Percent

1. Retrieve FIRST.

2. Follow the instructions below to format column C for percent with 2 decimal places.
   a. Move the cell pointer to the first cell to be formatted.
   b. Press /.
   c. Choose **R**ange, **F**ormat, **P**ercent.
   d. Key **2** and press Enter.
   e. Press Enter to format a single cell.

   or

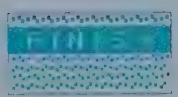
   Use the arrow keys to highlight the range of cells to be formatted and then press Enter.

1-2-3 Review

Range

3. Save your work. Name the file FIRST2.

4. Print the spreadsheet.



Narrative Reinforcement

Use the spreadsheet ALUMNI3 to prepare a list of male students who graduated after 1990. The extracted information needs to be sorted in descending order according to their salary. Save the spreadsheet as ALUMNI4. Print the spreadsheet.

Reinforcement

1. Retrieve COMM.
2. Format column D for percent with 0 decimal places.
3. Save your work. Name the file COMM2.
4. Print the spreadsheet.

Narrative Reinforcement

Create a list of the students in your classroom. List their first and last name, grade level, sex, age, and if they plan to attend college after graduation. Sort the list in alphabetical order according to their last name. Save the spreadsheet as STUDENT. Extract the students who plan to attend college. Save the spreadsheet as STUDENT2. Print the spreadsheet.

Format a Range of Cells for a +/- Graph

1. Retrieve CENTRAL.

2. Move column F to column D.

3. Follow directions below to make a +/- graph with the values in column D (D6 through D18).
   a. Move the cell pointer to the first cell to be used in the graph, D6.
   b. Press /.
   c. Choose **R**ange, **F**ormat, **+/-** .
   d. Use the arrow keys to highlight the range of cells to be used in the graph and press Enter.

1-2-3 Review

Format a Cell for +/- Graph:

Place pointer in first cell of graph
Press /
Choose **R**ange, **F**ormat, **+/-**
Select range and press ↵

4. Adjust the width of column D. If you are using a mouse, follow the directions below to adjust the width of column D.
   a. Place the mouse pointer on the vertical line marking the right boundary of column D.
   b. Press the left mouse button. The mouse pointer will turn into a double-pointed arrow.
   c. While holding down the mouse button, drag the cell border to the desired width, then release the mouse button.

5. Save your work. Name the file CENTRAL3.

Extract Records

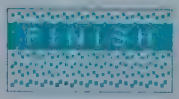
Walker Real Estate needs a current listing of all the houses in the area that are 10 years old or less, cost less than $125,000, and have three or more bedrooms.

1. Retrieve WALKER2.

2. Erase the previous criteria. Extract the houses that are 10 years old or less, cost less than $125,000, and have three or more bedrooms.

3. Save the spreadsheet as WALKER3.

4. Print the extracted data with the header, **HOUSES UNDER $125,000 (not over 10 years old with at least three bedrooms)**.



JOB 36

Reinforcement

1. Retrieve WILSON.
2. Format column H for commas with 0 decimal places.
3. Save your work. Name the file WILSON2.
4. Print the spreadsheet.

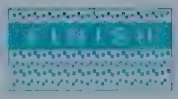
Extract Records

Eastlake Business College needs a list of the alumni who graduated after 1990 and live in Houston or Dallas.

1. Retrieve ALUMNI2.
2. Erase the previous criteria. Extract all the alumni who graduated after 1990 and live in Houston or Dallas.
3. Save the spreadsheet as ALUMNI3.
4. Print the extracted data with the header, **ALUMNI LIVING IN HOUSTON OR DALLAS (Graduated after 1990)**.

Reinforcement

1. Retrieve SOFT3.
2. Format column F for commas with 2 decimal places.
3. Save your work. Name your file SOFT4.
4. Print the spreadsheet.



Sort and Extract Records

The West Regional ACT site would like an alphabetical list of all the junior and sophomore students who scored above a 30 on their ACT test.

1. Retrieve ACT2.

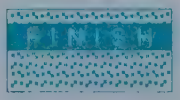
2. Extract all junior and sophomore students who scored above a 30 on their ACT test. See example below.

	A	B	C	D	E
26	Last	First	Sex	Score	Class
27				>30	Junior
28				>30	Soph

3. Sort the extracted information in alphabetical order according to the last name.

4. Save the spreadsheet as ACT3.

5. Print the extracted records with the header, **JUNIOR AND SOPHOMORE STUDENTS SCORING ABOVE 30 ON THE ACT TEST**.



Reinforcement

Smithfield High School wants a spreadsheet to keep records for the student work force.

1. Change the width of column A to 20 spaces.

2. Follow the directions below to change the width of columns B through F to 6 spaces.
   a. Move the cell pointer to the first column that needs to be changed.
   b. Press /.
   c. Choose **W**orksheet, **C**olumn, **C**olumn-Range, **S**et-Width.
   d. Highlight columns B through F and press Enter.
   e. Key the number for the desired width and press Enter.

3. Key the information below in your spreadsheet.

	A	B	C	D	E	F
1	SMITHFIELD HIGH SCHOOL					
2	STUDENT WORK FORCE					
3	APRIL 20-24, 19--					
4						
5	Hourly Rate	4.75				
6						
7	Name	Mon	Tue	Wed	Thu	Fri
8						
9	Juan Cortez	3.75	4	4	4	4
10	Joe Slizewski	2.75	0.5	4	4	1
11	Katie Stephens	4	4	2	2.5	4
12	Michi Kimura	4	3.75	5	3	4
13	Gregg Hill	4	6	4	4	3
14	Robert Babb	4	4	0	1.5	4
15	Karla Ford	0	0	0	0	4
16	Susan Chaney	4	3	4	1.5	4
17	Andy Sanchez	4	4	4	4	4

Continued on Next Page

2. If Wysiwyg is available, follow the instructions below to underline the column headings with a single line.
   a. Press : to bring up the main menu.
   b. Choose **F**ormat, **U**nderline, **S**ingle.
   c. The message **Change the attributes of the range** will appear. Key or highlight the range (A4 through E4) and press Enter.

1-2-3 Review

Range

3. Format column E for commas with 0 decimals.
4. Save the spreadsheet as AAA.
5. Sort the spreadsheet in alphabetical order, using the last names as the primary key and first names as the secondary key.
6. Resave the spreadsheet as AAA.
7. Print the spreadsheet.
8. Extract all employees who have been employed 10 or more years and earn more than $45,000.
9. Save the spreadsheet as AAA2.
10. Print the extracted records with the header, **EMPLOYEES - 10 or more years of service with salaries over $45,000**. If you applied underline using Wysiwyg, you must print through Wysiwyg.

4. Right align the headings for columns B through F.
5. Format columns B through F for fixed format with 2 decimal places.
6. When the spreadsheet is complete, save your work. Name the file WORK.
7. Print the spreadsheet.

Sort and Extract Records

Create a spreadsheet for AAA Manufacturing. The company needs an alphabetical list of their employees who earn more than $45,000 and have been employed 10 or more years.

1. Center the column headings and key the spreadsheet below. Adjust the column widths as necessary.

	A	B	C	D	E
1	AAA Manufacturing				
2	Employee Records				
3					
4	Last	First	Service	Department	Salary
5	Reeves	Kate	16	Administration	49990
6	Morris	Rick	15	Marketing	48500
7	Proctor	Billie	15	Administration	48450
8	O'Donahue	Phil	10	Purchasing	45650
9	Cranford	Larry	9	Administration	45300
10	Ragland	Phil	10	Accounting	42500
11	Ray	Jennifer	9	Finance	42440
12	Holland	Tom	8	Finance	38500
13	Hernandez	Maria	10	Personnel	37770
14	Floyd	Jackson	8	Personnel	35550
15	Tomlinson	Lillian	7	Advertising	34500
16	Quantas	Katherine	7	Personnel	33540
17	Myers	Katie	7	Purchasing	32220
18	Werner	Marie	6	Finance	29750
19	Cato	John	5	Finance	26350
20	Vernon	Jake	3	Personnel	25550
21	Cranford	Donna	7	Personnel	31550
22	Proctor	Clyde	6	Purchasing	30550

Continued on Next Page

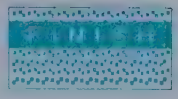
Reinforcement

Prepare a price list for Fun Track Company.

1. Change the width of column B to 25.
2. Center the column headings and key the data below.

	A	B	C	D	E	F
1	FUN TRACK					
2	PRICE LIST, 19--					
3						
4				10% Cash	Cash	Shipping
5	Item No.	Name	Price	Discount	Price	Charge
6						
7	1300F	Fun Track Elite	1099			33
8	344F	Fun Track 600 Achiever	699			33
9	1001F	Fun Track 530 Pro	599			33
10	1002F	Fun Track 505	499			33
11	1600F	Fun Track 303	399			33
12	328G	Ski Pole Grips and Straps	12			2
13	384M	XR210 Pulse Meter	99			3
14	395M	Sport PE-300 Pulse Meter	199			3
15	1187V	Video--Getting Started On	6.95			2
16		Your Fun Track				
17	875B	Storage Bag	149			5

3. Center all item numbers.
4. Use a formula to multiply Price by 10% to complete column D.
5. Use a formula to subtract 10% Cash Discount from Price to complete column E.
6. Format columns C, D, E and F for fixed format with 2 decimal places.
7. Save your work. Name your file FUN.
8. Print the spreadsheet.



2. Format columns B and G for commas with 0 decimal places.
3. Save the spreadsheet as WALKER.
4. Sort the spreadsheet in descending order, using the Cost column for the primary key and the Sq. Ft. column for the secondary key.
5. Resave the spreadsheet as WALKER.
6. Print the spreadsheet.
7. Extract the houses that have more than 2,500 sq. ft. and cost less than $190,000.
8. Save the spreadsheet as WALKER2.
9. Print the extracted records with the header, **OVER 2,500 SQ. FT. - UNDER $190,000**.

Reinforcement

Prepare a spreadsheet to show the planets and their distances from the sun.

1. Key the information below in your spreadsheet. For this job, do not format column headings.

	A	B	C	D	E
1	DISTANCE FROM THE SUN				
2					
3	Planet		Kilometers*		Miles*
4					
5	Mercury		58		
6	Venus		108		
7	Earth		150		
8	Mars		227		
9	Jupiter		777		
10	Saturn		1426		
11	Uranus		2870		
12	Neptune		4496		
13	Pluto		5902		
14					
15	*Millions of kilometers/miles				

2. To get the Miles in column E, divide column C by 1.61. Copy the formula to complete the column.
3. When the spreadsheet is complete, save your work. Name the file PLANET.
4. Print the spreadsheet.

Sort and Extract Records

Create a spreadsheet for Walker Real Estate's current listings. They need a listing of all the houses in the area that have more than 2,500 sq. ft. and that cost less than $190,000.

1. Center the column headings and key the spreadsheet below. Adjust the column widths as necessary.

	A	B	C	D	E	F	G
1	WALKER REAL ESTATE						
2	CURRENT LISTINGS						
3							
4	Address	Sq. Ft.	Bedrooms	Baths	Heat	Age	Cost
5	723 Motiff Drive	2449	4	3	Gas	2	170500
6	283 N. Greenley Drive	1500	3	2	Electric	3	75000
7	251 18th Street	2550	3	2	Electric	5	162500
8	101 Prospect Ave.	3342	4	3	Electric	1	215500
9	145 Augusta Drive	2000	3	2	Electric	4	125500
10	400 E. Murfield Drive	2863	3	2	Gas	3	185500
11	98 Collins Blvd.	2931	3	2	Gas	2	190500
12	432 Blossom Circle	2211	3	3	Gas	5	140500
13	231 Sam Houston	2277	3	3	Electric	10	123500
14	281 Riverside Drive	2561	4	3	Gas	8	126465
15	182 Churchill Drive	3177	4	3	Gas	25	205000
16	252 Whispering Hills	1366	3	2	Electric	7	68790
17	115 Willowbrook	4025	5	4	Gas	15	240500
18	425 University Street	1800	3	2	Gas	22	92500
19	533 Banks Street	2210	4	2	Gas	18	123500
20	188 Spring Street	1589	2	2	Gas	5	102500
21	88 Melrose Drive	1698	3	2	Gas	4	100500
22	25 Wintersmith Drive	1522	3	1	Electric	13	75000
23	8 Pine Street	3280	4	3	Gas	2	212550
24	111 South Cherry	1215	2	1	Electric	26	75000

Continued on Next Page

Create Lines

Create a report for the Board of Directors of a hospital.

1. Change the width of column A to 10 spaces and columns B, C and D to 12 spaces.

2. Center all column headings and enter the information below in your spreadsheet. Center the data in column A.

	A	B	C	D
1	ADMISSIONS, OCCUPANCY, AND LENGTH OF STAY			
2	STATISTICS FOR HOSPITALS			
3				
4	----------	----------	----------	----------
5	Type	Patient	Average	Average
6	of	Admissions	Percent of	Length of
7	Hospital	Number	Occupancy	Stay (Days)
8	----------	----------	----------	----------
9	A-1	2682	0.72	6.2
10	A-2	1824	0.81	6.9
11	A-3	1498	0.88	5.9
12	A-4	986	0.79	4.7
13	A-5	494	0.62	6.1
14	A-6	201	0.91	6.2

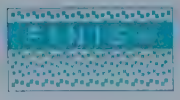
3. Lines can be created by keying repeating characters in one cell and then copying to a range of cells. Follow the instructions below to create a horizontal line in rows 4 and 8. If Wysiwyg is available, follow the Wysiwyg instructions in step 4 to create a line.
   a. Press backslash (\).
   b. Key character of your choice (example: *, =, - , +) and press Enter.
   c. For a continuous line or border, copy the cell to a range of cells.

1-2-3 Review

Create Line:
Press \
Key character to repeat
Press ↵
Copy cell as desired

Continued on Next Page

2. If Wysiwyg is available, bold the title and column headings.
3. Format column I for commas with 0 decimals.
4. Save the spreadsheet as ALUMNI.
5. Sort the spreadsheet. Sort the last names in alphabetical order as the primary key and the first names, also in alphabetical order, as the secondary key.
6. Resave the spreadsheet as ALUMNI.
7. Print the spreadsheet.
8. Extract all accountants who live in Texas.
9. Save the spreadsheet as ALUMNI2.
10. Print the extracted records with the header, **ACCOUNTANTS WHO LIVE IN TEXAS**.



4. Wysiwyg instructions:
   a. Press : to bring up the main menu.
   b. Choose **F**ormat, **L**ine.
   c. For a simple line, choose either **T**op or **B**ottom.
   d. Use the arrow keys to highlight the range for the line and press Enter.

5. Format column B for commas with 0 decimal places and column C for percent with 0 decimal places.

6. When the spreadsheet is complete, save your work. Name the file HOSP.

7. Print the spreadsheet. If you used Wysiwyg for your lines, you must print through Wysiwyg.

Sort and Extract Records

Create a spreadsheet showing alumni information for Eastlake Business College. The college needs a listing of the accountants who live in Texas.

1. Center the column headings and key the spreadsheet below. Adjust the column widths as necessary.

	A	B	C	D	E	F	G	H	I
1	EASTLAKE BUSINESS COLLEGE								
2	ALUMNI INFORMATION								
3									
4	Last	First	Sex	Address	City	St	Graduated	Profession	Salary
5									
6	Zilem	Randi	F	105 W. Cottage	Albuquerque	NM	1992	Comptroller	25262
7	Shaw	Amy	F	232 Belmont	Amarillo	TX	1992	Accountant	26850
8	Vasquez	Shawn	M	104 S. Monroe	Abilene	TX	1993	Analyst	23256
9	Adam	Shannon	F	467 Stadium Dr.	Houston	TX	1992	Buyer	20255
10	Boss	Myra	F	672 Kerr Lab Dr.	Dallas	TX	1989	Analyst	32555
11	Nichols	Jenny	F	322 Sandy Creek Dr	Carlsbad	NM	1992	Accountant	27555
12	McCurdy	Brian	M	256 Highland	Childress	TX	1993	Sales	18958
13	Howry	Sierra	F	133 Gardina Dr.	Dallas	TX	1992	Marketing	21566
14	Cook	Cari	F	723 Broadway Blvd.	El Paso	TX	1991	Accountant	25357
15	Jones	Andrew	M	1416 Cherry Blvd.	Roswell	NM	1992	Secretary	16899
16	Garrett	Jayme	F	1433 Johnson Blvd.	Houston	TX	1993	Programmer	22567
17	Gaster	Kristi	F	2335 Lakeview Dr.	Dallas	TX	1990	Secretary	23599
18	Franklin	Brian	M	234 County Rd.	Odessa	TX	1990	Comptroller	23888
19	Byrd	Kristin	F	114 Crestview Dr.	Oklahoma City	OK	1989	Sales	18555
20	Brantley	Carey	F	330 Old Mill Rd.	San Antonio	TX	1990	Marketing	22567
21	Hart	Jamie	M	233 Ridgeview Dr.	Shreveport	LA	1988	Accountant	33555
22	Hatton	Sari	F	236 Valley View Rd	Little Rock	AR	1992	Accountant	35758
23	Hatton	Kerri	F	236 Valley View Rd	Little Rock	AR	1992	Marketing	36325
24	Baker	Rachel	F	201 Kings Rd.	Lawton	OK	1989	Marketing	26788
25	Curry	Scott	M	233 Richland	Ft. Worth	TX	1990	Programmer	32547
26	Johnson	Chris	M	1544 Fairview	Denton	TX	1990	Sales	28963
27	Jones	Glen	M	2230 N. MontaVista	Arlington	TX	1991	Accountant	26588
28	Johnston	Jennifer	F	877 Mayfair Dr.	Oklahoma City	OK	1992	Analyst	28580
29	Vandeveer	Amber	F	233 Rosedale Rd.	Wichita	KS	1993	Programmer	19588
30	Stevenson	Chris	M	3765 Oakridge	Amarillo	TX	1990	Marketing	22550
31	Sewell	Missy	F	1234 Ash	Austin	TX	1989	Comptroller	28960
32	Rich	Jennifer	F	127 Springdale	Baton Rouge	LA	1988	Accountant	37988
33	Penn	Mandi	F	123 Arlington	New Orleans	LA	1993	Sales	28960
34	McNutt	Tiffani	F	456 Townsend	Houston	TX	1991	Buyer	27850

Continued on Next Page

JOB 42

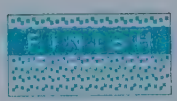
Narrative Reinforcement

The golf coach at Westville High School needs a record of scores for the week of October 9—13.

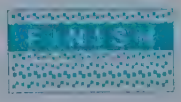
1. Key a suitable heading.
2. Create labels for Monday through Friday.
3. Key the names and scores shown below.

Landrum, T.	71	72	69	78	68
Scott, J.	75	75	82	89	80
Wilson, J.	68	72	89	75	70
Herdon, R.	70	75	90	85	88
Turner, H.	88	87	81	80	91
Wilcox, T.	77	81	82	76	80
Moon, T.	79	84	80	81	78

4. Create a formula to obtain a total for each team member.
5. Save your work. Name the file GOLF.
6. Print the spreadsheet.



2. If Wysiwyg is available, bold the title and column headings.
3. Center the text in column C and right align the text in column E.
4. Save the spreadsheet as ACT.
5. Sort the spreadsheet. Sort the test scores in descending order as the primary key, and alphabetize the last names as the secondary key.
6. Resave the spreadsheet as ACT.
7. Print the spreadsheet.
8. Extract all students who scored above a 31 on their ACT test and who are classified as juniors. The criteria should be entered as **'>31** and **Junior**.
9. Save the spreadsheet. Name your file ACT2.
10. Print the extracted records with the header, **JUNIORS - ACT SCORES ABOVE 31**. If you used bold print, remember to print through Wysiwyg.



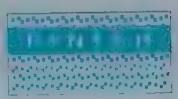
JOB 43

Narrative Reinforcement

ENTERTAINMENT TODAY, INC. would like a list of video rentals for June, July and August. Below is a list of the kind and number rented for each of the three months. Use this information to create a spreadsheet. A row labeled Total will also be needed. Enter a formula to get a total for each month.

New Releases	1208	1291	1233
Western	188	150	191
Comedy	186	189	176
Exercise	128	119	131
Sports	133	119	126
Disney	1307	1422	1509
Science Fiction	119	131	126
49-Cent Special	1306	1324	1402

Save and print the spreadsheet. Name the file RENTALS.



Sort and Extract Records

Create the spreadsheet below for the West Regional ACT Site. In addition to the full spreadsheet, the testing site needs a list of all junior students who scored above 31 on their ACT test.

1. Center the column headings and key the spreadsheet below. Adjust the column widths as necessary.

	A	B	C	D	E
1	WEST REGIONAL SITE				
2	ACT Scores				
3					
4	Last	First	Sex	Score	Class
5	Smith	Shannon	F	33	Junior
6	Jackson	Darin	M	22	Senior
7	Cranford	Lauren	F	21	Junior
8	Hill	Carter	M	19	Junior
9	Boatwright	Todd	M	28	Junior
10	Matsumito	Terry	M	32	Junior
11	Greenwood	Phil	M	29	Soph
12	Chin	Sharon	F	28	Soph
13	Kiaser	Jeff	M	33	Junior
14	Chernoff	Ron	M	32	Senior
15	Jones	Jennifer	F	19	Soph
16	Glasgow	Angie	F	22	Senior
17	Benefield	David	M	19	Junior
18	Sanchez	Mark	M	32	Senior
19	Allen	Sara	F	28	Soph
20	Snyder	Larry	M	27	Senior
21	Waters	Holly	F	32	Junior
22	Buelow	Kerri	F	33	Senior
23	Carmike	Katy	F	18	Soph
24	Esposito	Allen	M	31	Soph

Continued on Next Page

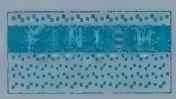
Narrative Reinforcement

Use the spreadsheet to record your study hours. Key a heading with your name. Under your name, key **STUDY HOURS**.

In column A list your classes. Label column C with **Mon.** and list the number of hours you study for each class in the appropriate cells. Label column D with **Tues.** and list the number of hours you study for each class on that day in the appropriate cells. Enter information for the rest of the week (Wednesday through Sunday) in the columns to the right.

Create a formula to obtain a total for each class. Also, create a total for each day at the bottom of the spreadsheet. In addition, you need the total hours you studied for the week.

Save and print the spreadsheet. Name the file STUDY.



Extract Records

Westcox would like a list of all employees who work in the Administration Department and make less than $80,000.

1. Retrieve WESTCOX4.

2. Key **Administration** in cell C27 and key **'<80000** in cell D27 to change the criteria. ALL LOGICAL OPERATOR SYMBOLS SUCH AS < MUST BE PRECEDED BY A LABEL PREFIX. This prefix will not show on your spreadsheet. See the example below.

	A	B	C	D	E
26	Name	Location	Department	Salary	Experience
27			Administration	<80000	

3. Extract records for all employees in the Administration Department who make less than $80,000.

4. Save the spreadsheet. Name your file WESTCOX5.

5. Print the range A29 through E33 with the header, **EMPLOYEES - ADMINISTRATION DEPARTMENT (Salaries under $80,000)**.

Narrative Reinforcement

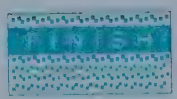
The golf coach wants to add two more weeks to his spreadsheet.

Retrieve GOLF and add the information for the weeks of October 16–20 and October 22–26 under the week of October 9–13. Use the Copy command where appropriate.

	October 16-20				
Landrum, T.	70	72	88	67	68
Scott, J.	75	74	82	89	80
Wilson, J.	69	70	81	75	72
Herdon, R.	80	76	92	86	89
Turner, H.	87	90	80	80	88
Wilcox, T.	77	80	88	77	88
Moon, T.	80	81	85	82	78

	October 22-26				
Landrum, T.	79	77	72	67	70
Scott, J.	75	81	76	90	88
Wilson, J.	70	72	80	77	76
Herdon, R.	100	80	89	82	81
Turner, H.	84	86	78	81	72
Wilcox, T.	85	77	76	89	76
Moon, T.	82	88	80	79	82

Save and print the spreadsheet. Name the file GOLF2.



Extract Records

Westcox would like a list of all employees who work in the Art Department.

1. Retrieve WESTCOX3.

2. Clear cell B27 and key **Art** in cell C27 to change the criteria.

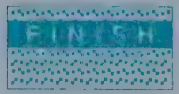
3 Extract all employees who work in the Art Department.

4. Save the spreadsheet. Name your file WESTCOX4.

5. If Wysiwyg is available, follow the instructions below to place a header on the spreadsheet.
   a. Press : to bring up the main menu.
   b. Choose **P**rint, **L**ayout, **T**itles, **H**eader.
   c. Key **EMPLOYEES - ART DEPARTMENT** and press Enter.
   d. Choose **Q**uit to return to the READY mode.

   If Wysiwyg is not available, follow the instructions below to place a header on the spreadsheet.
   a. Press /.
   b. Choose **P**rint, **P**rinter, **O**ptions, **H**eader.
   c. Key **EMPLOYEES - ART DEPARTMENT** and press Enter.
   d. Choose **Q**uit to return to the READY mode.

6. Print the range A29 through E34.



Narrative Reinforcement

ENTERTAINMENT TODAY, INC. needs their spreadsheet updated.

Retrieve RENTALS and add the information for September, October and November to the spreadsheet. Also create a formula to show the total number of rentals for the period June through November.

	September through November		
New Releases	2288	2321	2313
Western	97	159	81
Comedy	196	76	284
Exercise	29	24	54
Sports	186	87	176
Disney	2490	1654	2609
Science Fiction	21	32	43
49-Cent Special	1891	1623	1599

Save and print the spreadsheet. Name the file RENTALS2.

Extract Records

Westcox would like an alphabetical list of all employees who work in the Dallas office.

1. Retrieve WESTCOX2.

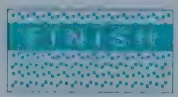
2. Follow the directions below to extract a list of all employees who work in the Dallas office.
   a. Copy A6 through E6 to A26 through E26 to create the criteria range. Next, key **Dallas** in cell B27.
   b. Copy A26 through E26 to A29 through E29 to create the output range.
   c. Press /.
   d. Choose **D**ata, **Q**uery.
   e. Choose **I**nput and key or highlight A6 through E23 and press Enter. Note that the input range *must* include the field names.
   f. Choose **C**riteria and key or highlight A26 through E27 and press Enter.
   g. Choose **O**utput and key or highlight A29 through E29 and press Enter.
   h. Choose **E**xtract.
   i. Choose **Q**uit. The employees who work in the Dallas office should be listed in the output range.

1-2-3 Review

- **Extract Records:**
  Create the criteria and output ranges
  Press /, **D**ata, **Q**uery
  Choose **I**nput, select range, and press ↵
  Choose **C**riteria, select range, and press ↵
  Choose **O**utput, select range, and press ↵
  Choose **E**xtract
  Choose **Q**uit

3. Save the spreadsheet. Name your file WESTCOX3.

4. Print the range A29 through E34.



Narrative Reinforcement

Wiley Standfield would like a spreadsheet with payroll information about his student workers. He needs the names in column A, the high school they attend in column C, the rate of pay ($5.00 per hour) in column D, the number of hours worked for Wk. 1 in column E, the number of hours worked for Wk. 2 in column F, the number of hours worked for Wk. 3 in column G, and the number of hours worked for Wk. 4 in column H. He also needs the total hours for each student in column I. Next, multiply the total hours in column I by the rate in column D to get the salary for each student in column J.

Logan, D.	Bixby	20	15	18	20
Bare, K.	Midwest	21	10	10	10
Kemp, J.	Douglas	8	10	15	10
Roark, B.	Norman	15	12	12	12
Bingham, K.	Shawnee	10	8	10	15

Save and print the spreadsheet. Name the file WILEY.

Sort a Database

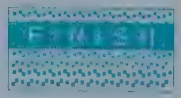
Outstanding Video NetWork needs an alphabetical list of the companies that develop their videos. Also, the titles of the videos need to be listed in alphabetical order.

1. Retrieve TAPES4.

2. Follow the directions below to sort with both the primary and the secondary key.
   a. Press /.
   b. Choose **D**ata, **S**ort.
   c. Choose **D**ata-Range and key or highlight the range to sort (A9 through F47).
   d. Choose **P**rimary-Key and move the cell pointer to the field titled Developed By (column D) and press Enter.
   e. Choose **A** and press Enter.
   f. Choose **S**econdary-Key and move the cell pointer to the Title field (column B) and press Enter.
   g. Choose **A** and press Enter.
   h. Choose **G**o.

3. When the spreadsheet is complete, save your work. Name the file TAPES5.

4. Print the range A1 through F47.



CHAPTER 4

Jobs 48—56
Deleting and Inserting Columns and Rows

Time Estimate: 2 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Delete a single row or a single column
2. Delete multiple rows
3. Delete multiple columns
4. Insert a single row
5. Insert multiple rows
6. Insert a single column
7. Insert multiple columns

Sort a Database

Westcox would also like their employees listed from the highest to the lowest salary.

1. Retrieve WESTCOX.
2. Sort the spreadsheet so that the salaries in column D are in descending order (from highest to lowest).
3. Save the spreadsheet. Name your file WESTCOX2.
4. Print the spreadsheet.

1-2-3 Review

Range

FINISH

Delete a Single Row or a Single Column

The football program needs an updated list of the players.

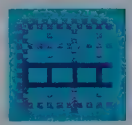
1. Retrieve FBALL2.

2. Terry Phillips and James Smith quit the football program. Remove their names by following the instructions below to delete a single row from your spreadsheet.
   a. Place the cell pointer on the row to be deleted.
   b. Press /.
   c. Choose **W**orksheet, **D**elete, **R**ow.
   d. Press Enter.

1-2-3 Review

Delete Row/Column:

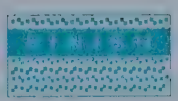
Place pointer in row/column to be deleted
Press /
Choose **W**orksheet, **D**elete, **R**ow or **C**olumn
Press ↵



3. To decrease the width of the spreadsheet, delete column D. Follow the instructions below to delete a single column.
   a. Place the cell pointer on the column to be deleted.
   b. Press /.
   c. Choose **W**orksheet, **D**elete, **C**olumn.
   d. Press Enter.

4. Save your work. Name your file FBALL3.

5. Print the spreadsheet.



1-2-3 Review

2. If Wysiwyg is available, follow the instructions below to bold print the column headings.
   a. Press : to bring up the main menu.
   b. Choose **F**ormat, **B**old, **S**et.
   c. The message **Change the attributes of range** will appear. Key or highlight the range (A5 through E6) and press Enter.
3. Format column D for commas with 0 decimal places.
4. Save the spreadsheet. Name your file WESTCOX.
5. Sort the spreadsheet so that the employee names in column A are in ascending order.
6. Resave the spreadsheet with the name WESTCOX.
7. Print the spreadsheet. If you applied bold formatting using Wysiwyg, you must print through Wysiwyg.

Delete Multiple Rows

The computer software list needs to be updated.

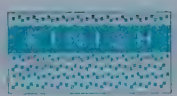
1. Retrieve SOFT4.
2. The company has eliminated Business I, Business II and Business III from their software line. Follow the instructions below to delete rows 12, 13 and 14 from your spreadsheet.
   a. Place the cell pointer on the first row to be deleted.
   b. Press /.
   c. Choose **W**orksheet, **D**elete, **R**ow.
   d. Use the down arrow key to highlight the rows to be deleted and press Enter.
3. Save your work. Name the file SOFT5.
4. Print the spreadsheet.

1-2-3 Review

Delete Multiple Rows:

Place pointer in first row to be deleted
Press /
Choose **W**orksheet, **D**elete, **R**ow
Select range to delete and press ↵

Range



Create and Sort a Database

Westcox, Inc. would like an alphabetical list of their employees that includes the place of employment and the department assignment for each employee. The list should also include their current salary and the number of years they have worked for the company.

1. Center the column headings on rows 5 and 6 and key the spreadsheet below. Adjust the column widths as necessary.

	A	B	C	D	E
1	WESTCOX, INC.				
2	BRANCH OFFICES				
3	EMPLOYEE RECORDS				
4					
5	Employee	Office			Years of
6	Name	Location	Department	Salary	Experience
7	Aron, Vicki S.	Dallas	Art	48000	15
8	Esch, Carl W.	Dallas	Production	32000	11
9	Carew, Barbara K.	Houston	Selling	66900	7
10	Lewis, Ken T.	Los Angeles	Administration	75800	12
11	Rayn, Janice P.	Los Angeles	Administration	75000	11
12	Letson, Thelma K.	Houston	Art	36000	5
13	Cole, David M.	Chicago	Selling	37200	3
14	Felica, Jeff R.	Dallas	Selling	44100	2
15	Frye, Amy L.	Chicago	Administration	86200	15
16	Irwin, Glenda M.	Los Angeles	Selling	26000	0
17	Claxton, Bill F.	Dallas	Administration	84000	15
18	Nelson, Leon J.	Los Angeles	Art	28000	2
19	Clark, Jim T.	Los Angeles	Art	28200	2
20	Bender, Jeffrey G.	Chicago	Art	36000	6
21	Ward, Susan K.	Chicago	Administration	71400	5
22	Oakey, Stacy L.	Dallas	Selling	80800	12
23	Kelly, Ruby L.	Houston	Administration	70000	4

Continued on Next Page

Delete Multiple Columns

The manager of Wilson Jones and Company needs an inventory list that includes only the Item No., Item Name and Cost.

1. Retrieve WILSON2.

2. Follow the instructions below to delete columns D, E, F and G from your spreadsheet. Also, delete the last column for Service Repairs.
   a. Place the cell pointer on the first column to be deleted.
   b. Press /.
   c. Choose **W**orksheet, **D**elete, **C**olumn.
   d. Use the right arrow key to highlight the columns to be deleted and press Enter.

3. Save your work. Name the file WILSON3.

4. Print the spreadsheet.

1-2-3 Review

Delete Multiple Columns:

Place pointer in first column to be deleted
Press /
Choose **W**orksheet, **D**elete, **C**olumn
Select range to delete and press ↵

Range

Sort a Database

Outstanding Video NetWork would like an alphabetical list of the videos listed in their catalog.

1. Retrieve TAPES3.
2. Use the data range A9 through F47 and sort column B in ascending order.
3. Save the spreadsheet. Name your file TAPES4.
4. Print the range A1 through F47.

Insert a Single Row

The manager of Fischer Auto Enterprises would like to have a total for each region.

1. Retrieve AUTO3.
2. Center **TOTAL** in cell A7 and enter a formula in cell D7 to add the car sales.
3. The spreadsheet would be more attractive if there were a blank row following TOTAL. Follow the instructions below to insert a row.
   a. Rows are inserted above the cell pointer. Place the cell pointer in the proper location to insert a row.
   b. Press /.
   c. Choose **W**orksheet, **I**nsert, **R**ow.
   d. Press Enter.
4. Follow steps 2 and 3 to include a TOTAL label, a formula, and a blank row for the other three regions.
5. To decrease the width of the spreadsheet, delete column C from your spreadsheet.
6. Save your work. Name your file AUTO4.
7. Print the spreadsheet.

1-2-3 Review

Insert a Single Row:

Place pointer in the proper location
Press /
Choose **W**orksheet, **I**nsert, **R**ow
Press ↵

Range

Sort a Database

The Sports Grill would like the employees on their payroll listed in alphabetical order.

1. Retrieve GRILL and insert two rows above row 19.

2. Add the new employee information below on rows 19 and 20. To complete the payroll information for these employees, insert formulas in columns D through H. Don't forget to use the Copy feature.

	A	B	C	D	E	F	G	H
19	Christopher, Jamie	5	20					
20	Vance, William	5	20					

3. Format column B for fixed format with 2 decimal places.

4. Edit the formulas in rows 22 through 25 to include rows 19 and 20.

5. Follow the directions below to sort the employee names in column A in alphabetical order (ascending).
   a. Press /.
   b. Choose **D**ata, **S**ort.
   c. Choose Data-Range to identify the range to be sorted.
   d. Highlight or key the data range (A7 through H20) and press Enter. The data range must include all of the material that is to move with the sort. This should be all the records but not the title, field names or totals.
   e. Choose **P**rimary-Key and move the cell pointer to column A (the field to use for the sort) and press Enter.
   f. Choose **A** (ascending order) and press Enter.
   g. Choose **G**o to execute the sort.

6. Save the spreadsheet. Name your file GRILL2.

7. Print the spreadsheet.

1-2-3 Review

Sort a Database:
Press /
Choose **D**ata, **S**ort
Choose Data-Range; select the range and press ↵
Choose **P**rimary-Key; place cell pointer in field to sort and press ↵
Choose **A** or **D** and press ↵
Select a **S**econdary-Key if necessary
Choose **G**o

Range

Insert Multiple Rows

Jerry Hammond would like a report to reflect his earnings for the pay period of February through June.

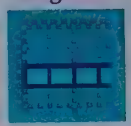
1. Retrieve EARN2.
2. Delete the pay period information for 7/15 and 7/31.
3. Follow the instructions below to insert four rows above row 7.
   a. Place the cell pointer in the proper location to insert rows.
   b. Press /.
   c. Choose **W**orksheet, **I**nsert, **R**ow.
   d. Use the down arrow key to highlight the desired number of rows to be inserted and press Enter.
4. Key the additional data below in rows 7, 8, 9 and 10.
5. Copy the formula to complete column D for the additional data.
6. Change the heading to **PAY PERIOD FOR FEBRUARY - JUNE**.

1-2-3 Review

Insert Multiple Rows:

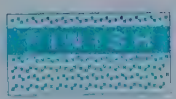
Place pointer in the proper location
Press /
Choose Worksheet, Insert, Row
Select range of rows to insert and press ↵

Range



	A	B	C
7	2/15	650	10.5
8	2/28	650	48.5
9	3/15	650	20.25
10	3/31	650	30.3

7. Globally format the spreadsheet for fixed format with 2 decimal places.
8. Save your work. Name your file EARN3.
9. Print the spreadsheet.



CHAPTER 9

Jobs 119—136
Creating a Database

Time Estimate: 4 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Use the Sort command
2. Extract records by using the Data Query command
3. Format with bold
4. Format with underline

Reinforcement

Smithfield High School wants a new spreadsheet for the week of May 11—15, 19--.

1. Retrieve WORK.
2. Katie Stephens no longer works for the school. Delete the row with her name.
3. Add **Leon Jackson** and **Gina Stafford** to the bottom of the spreadsheet. They are new employees.
4. Change all the information in the spreadsheet. Use the strikeover method to key the new information listed below.

	B	C	D	E	F
9	2.75	4	4	4.5	4
10	2.75	1.5	0	4.25	1
11	4	3	4	4.5	4
12	4	3.75	0	4	4
13	4	2	4	3	3
14	4	4	4	3	4
15	4	4	4	3	4
16	4	3	4	2	4
17	4	4	4	4	4
18	4	4	4	3	4

5. Format the additional information for fixed format with 2 decimal places.
6. Change the date in the heading to **May 11-15, 19--**.
7. When the spreadsheet is complete, save your work. Name the file WORK2.
8. Print the spreadsheet.

Narrative Reinforcement

Create a stacked bar graph to show the approximate number of students in your school who eat in the cafeteria and the approximate number who eat off campus. Make this graph a 3D stacked bar graph. Use seniors, juniors and sophomores for the x-axis label range, the number of students in each grade level who eat in the cafeteria for the A data range, and the number of students for each grade level who eat off campus for the B data range. If this information is not available to you, use the following information: seniors in the cafeteria, 102; seniors off campus, 361; juniors in the cafeteria, 104; juniors off campus, 398; sophomores in the cafeteria, 498; sophomores off campus, 111. Add appropriate titles and legends. Name and save the graph as CAF-S. Save the spreadsheet CAFE.

Insert a Single Column

The manager of Floyd's Department Store would like additional information on the payroll register.

1. Retrieve FLOYD2.

2. The manager would like to include columns for Marital Status and No. of Allowances. Center the headings **Marital** in cell B4 and **Status** in cell B5.

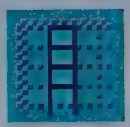
3. Follow the instructions below to insert a column between columns B and C.
   a. Columns are inserted to the left of the cell pointer. Place the cell pointer in the proper location to insert a column.
   b. Press /.
   c. Choose **W**orksheet, **I**nsert, **C**olumn.
   d. Press Enter.

4. Center the headings **No. of** in cell C4 and **Allowances** in cell C5.

5. Key the additional data below in columns B and C.

1-2-3 Review

- **Insert a Column:**
  Place pointer in the proper location
  Press /
  Choose **W**orksheet, **I**nsert, **C**olumn
  Press ↵



	B	C
4	Marital	No. of
5	Status	Allowances
6		
7	M	2
8	M	2
9	S	1
10	M	3
11	S	1
12	S	1

6. Right align the data in column B.

7. Save your work. Name your file FLOYD3.

8. Print the spreadsheet.

Narrative Reinforcement

Create a line graph with a grid to show the approximate number of students in your school who own an automobile. Use seniors, juniors and sophomores for the x-axis label range, and the number of students in each grade level for the A data range. If this information is not available to you, use the following information: seniors, 213; juniors, 298; sophomores, 89. Add appropriate titles. Name and save the graph as STU-L. Save the spreadsheet as SAUTO.

Insert Multiple Columns

West Real Estate and Auction needs additional data for the Regional Employee Records.

1. Retrieve WEST.

2. The manager needs to include columns for the Employee ID No. and Sex of the employee. Follow the instructions below to insert two columns between columns B and C.
   a. Place the cell pointer in the proper location to insert the columns.
   b. Press /.
   c. Choose **W**orksheet, **I**nsert, **C**olumn.
   d. Use the right arrow key to highlight two columns and press Enter.

3. Insert a blank row above row 3. Center the column headings **EMPLOYEE** in cell C4 and **ID NO.** in cell C5. Center the heading **SEX** in D5.

4. Change the width of column C to 12 spaces and column D to 5 spaces.

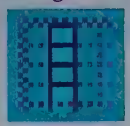
5. Key the additional data on the following page. Right align column D.

1-2-3 Review

Insert Multiple Columns:

Place pointer in the proper location
Press /
Choose **W**orksheet, **I**nsert, **C**olumn
Use right arrow to highlight number of columns
Press ↵

Range



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Narrative Reinforcement

Create a pie chart for your school population. Use seniors, juniors and sophomores for the x-axis label range, and the number of students in each grade level for the A data range. If this information is not available to you, use the following information: seniors, 463; juniors, 502; sophomores, 609. Add appropriate titles. Name and save the graph as SCH-P. Save the spreadsheet as SCHOOL.

	C	D
4	EMPLOYEE	
5	ID NO.	SEX
6		
7	443-78-9876	M
8	442-78-7888	F
9	980-54-7895	F
10	300-78-7892	M
11	456-89-7888	M
12	676-88-8999	M
13	555-90-8976	M
14	215-98-8976	F
15	233-67-7654	F
16	556-23-5678	F

6. Save your work. Name your file WEST2.
7. Print the spreadsheet.

Print Graphs

Access PrintGraph and print PCM-HL, SAF-HL, CIT-L, CIT-B, CIT-S and OUT-X.

Reinforcement

1. Retrieve SANDERS2.
2. Insert rows as necessary to add the additional data below so that the customer names will be in alphabetical order.

Casey's Fashions	1545 E. 1st Street, Ponca City, OK	2432.35
Cowboy Cuts	1124 Stadium Dr., Miami, FL	3824.56
Dillon's	803 Mockingbird Lane, Atlanta, GA	5543.27
K & L Clothing	903 West Main Street, Oakland, CA	3245.77
Marny's Accessories	808 Cherry Blvd., Reno, NV	892.56

3. The manager would like to include a column for the customer's account number. Insert two columns between columns A and B.
4. Add the heading **ACCOUNT** in cell B4 and **NUMBER** in cell B5.
5. Add the data below in column B.

	B
4	ACCOUNT
5	NUMBER
6	
7	1144
8	1123
9	1238
10	803
11	1001
12	1154
13	2001
14	565
15	235
16	1233

Continued on Next Page

2. Follow instructions below to create an XY graph to show the relationship between the number of disks purchased and the price per disk.
   a. With the spreadsheet on the screen, press /.
   b. Choose **G**raph.
   c. Choose **T**ype, **XY**.
   d. Choose **X**, highlight the x-axis labels for the graph (A10 through A19), and press Enter.
   e. Choose **A**, highlight the A data range for the graph (B10 through B19), and press Enter.
   f. The first title for the graph will be **COMPUTER DISK OUTLET**, the x-axis title will be **Number of Disks Purchased**, and the y-axis title will be **Price per Disk**.
   g. Choose **V**iew or press F10.

1-2-3 Review

Create an XY Graph:

With the spreadsheet on the screen, press /
Choose **G**raph, **T**ype, **XY**
Choose **X**, highlight the x-axis labels for the graph, and press ↵
Choose **A**, highlight the A data range for the graph, and press ↵

3. Use the Graph menu to name *and* save the graph. Name the graph OUT-X.

4. Use the main menu to save the spreadsheet. Name your file OUTLET.

5. If Wysiwyg is available, add the graph to the spreadsheet in the range A22 through F40.

6. If you added the graph to the spreadsheet, save it and name the spreadsheet with the graph OUTLET2. Use Wysiwyg to print the spreadsheet.

6. Change the width of column B to 7 spaces and column C to 3 spaces.
7. Reformat column E for commas with 2 decimal places to include the data added.
8. Save your work. Name your file SANDERS3.
9. Print the spreadsheet.

Create an XY Graph

Computer Disk Outlet sells disks "in bulk." The more disks purchased, the lower the unit price. Prepare a graph to show this relationship.

1. Create the spreadsheet below with right aligned column headings. Use a formula to complete column C and format the values in columns B and C for fixed format with 2 decimal places.

	A	B	C
1	COMPUTER DISK OUTLET		
2	"Buy Bulk"		
3			
4	Price Sheet for March, 19--		
5			
6		Price	
7	Number	per	Total
8	Purchased	Disk	Price
9			
10	5	0.98	
11	10	0.95	
12	15	0.93	
13	20	0.9	
14	25	0.88	
15	30	0.85	
16	40	0.8	
17	50	0.75	
18	75	0.7	
19	100	0.6	

Continued on Next Page

CHAPTER 5

Jobs 57—79
Entering Formulas

Time Estimate: 8 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Use the @SUM function
2. Use the @AVG function
3. Use the @MAX and @MIN functions
4. Use the @PMT function
5. Use an absolute reference in a formula
6. Use the @DATE function
7. Use the @COUNT function

7. Use the Graph menu to name *and* to save the graph CIT-B.

8. Reset the graph and change the graph to a stacked bar graph.

9. Use the Graph menu to name *and* to save the graph CIT-S.

10. Follow the directions below to create a table in the range G7 through H10 for the named graphs.
    a. From the Graph menu, choose **N**ame.
    b. Choose **T**able.
    c. Highlight an empty range on the spreadsheet (G7 through H10) for the table and press Enter.
       or
       Key the cell location for the table and press Enter.
    d. Choose **Q**uit.

11. Use the main menu to save your spreadsheet. Name your file CITIES. Print the spreadsheet.

1-2-3 Review

- **Create a Table of Named Graphs:**

  Press /
  Choose **G**raph, **N**ame, **T**able
  Highlight empty range on the spreadsheet for the table and press ↵
  or
  Key the cell location for the table and press ↵

FINISH

Use the @SUM Function

The owner of the Sports Stuff store needs a Post- Closing Trial Balance.

1. Change the width of column A to 30 spaces and columns B and C to 14 spaces.
2. Center the column headings and key the data below in your spreadsheet.

	A	B	C
1	SPORTS STUFF		
2	POST-CLOSING TRIAL BALANCE		
3	NOVEMBER 30, 19--		
4			
5	Account Title	Debit	Credit
6			
7	Cash	21554.2	
8	Accounts Receivable	25572	
9	Merchandise Inventory	75400	
10	Supplies	541	
11	Office Equipment	5400	
12	Prepaid Insurance	805	
13	Accounts Payable		7576.2
14	Sales Tax Payable		2889
15	Kari Hennigan, Capital		52242.9
16	Lindsey Hennigan, Capital		66564.1
17			
18	TOTALS		

Continued on Next Page

Create a Table of Named Graphs

For your convenience, a table of graph names can be created and stored with the spreadsheet file. Any of the graphs can be recalled to view or edit.

1. Create the spreadsheet below. Right align the column headings in columns C and D and format the values in the spreadsheet for percent with 1 decimal place.

	A	B	C	D
1	CITIES - AUTOMOBILES			
2	Most Cars			
3				
4			Cars Per Household	
5	Location		1+	3+
6				
7	Oklahoma City		0.933	0.205
8	Dallas		0.932	0.212
9	Phoenix		0.923	0.214
10	Tuscon		0.92	0.195
11	Denver		0.914	0.222
12	Sacramento		0.906	0.204
13	San Diego		0.902	0.203
14	San Antonio		0.891	0.182
15	Seattle		0.89	0.21
16	Kansas City		0.89	0.166

2. Create a line graph showing the percentage of households with 1+ cars and 3+ cars. Use the cities under Location for the x-axis label range, the data under 1+ for data A range, and the data under 3+ for data B range.
3. The title for the graph is **CITIES - AUTOMOBILES**.
4. The legends are **1+** and **3+**.
5. Use the Graph menu to name and to save the graph CIT-L.
6. Reset the graph and change the line graph to a bar graph.

Continued on Next Page

Continued

3. Follow the instructions below for using the @SUM function and total the debit column (B7 through B12).
   a. Place the cell pointer in cell B18.
   b. Key **@SUM(B7.B12)**.
4. Use the @SUM function to total the Credit column (C13 through C16).
5. Format column B and C for commas with 2 decimal places.
6. Save your work. Name your file SPORTS.
7. Print the spreadsheet.

1-2-3 Review

- **Use @SUM:**
  Place pointer where the sum should appear
  Key @SUM(*first cell.last cell*)

Range

Create an HLCO Graph

Walt Azinger wants to evaluate his stock with Safe Card (SafeCd). He will need another graph.

1. Create the spreadsheet below. Right align the column headings and format the values in the spreadsheet for fixed format with 3 decimal places.

	A	B	C	D	E
1	SAFE CARD				
2	Week of February 7 - February 11, 19--				
3					
4		High	Low	Close	Open
5					
6	2/7	20.125	19	19.875	19
7	2/8	22.125	19.875	20.125	19.875
8	2/9	22	19.75	21.125	20.125
9	2/10	22.25	21.125	22	21.125
10	2/11	22.125	19.875	22.125	22

2. Create an HLCO graph for the week of February 7 through February 11. Use the dates for the x-range labels. For the A, B, C and D data ranges, use the high, low, closing and opening prices.

3. The titles will be **SAFE CARD** for the first title, **February 7 - February 11, 19--** for the second title, and **Price** for the y-axis title.

4. Use the Graph menu to name *and* to save the graph. Name the graph SAF-HL.

5. Use the main menu to save the spreadsheet. Name your file SAFECD.

6. If Wysiwyg is available, add the graph to the spreadsheet in the range A13 through F25.

7. If you added the graph to the spreadsheet, save it and name the spreadsheet with the graph SAFECD2. Use Wysiwyg to print the spreadsheet.

Reinforcement

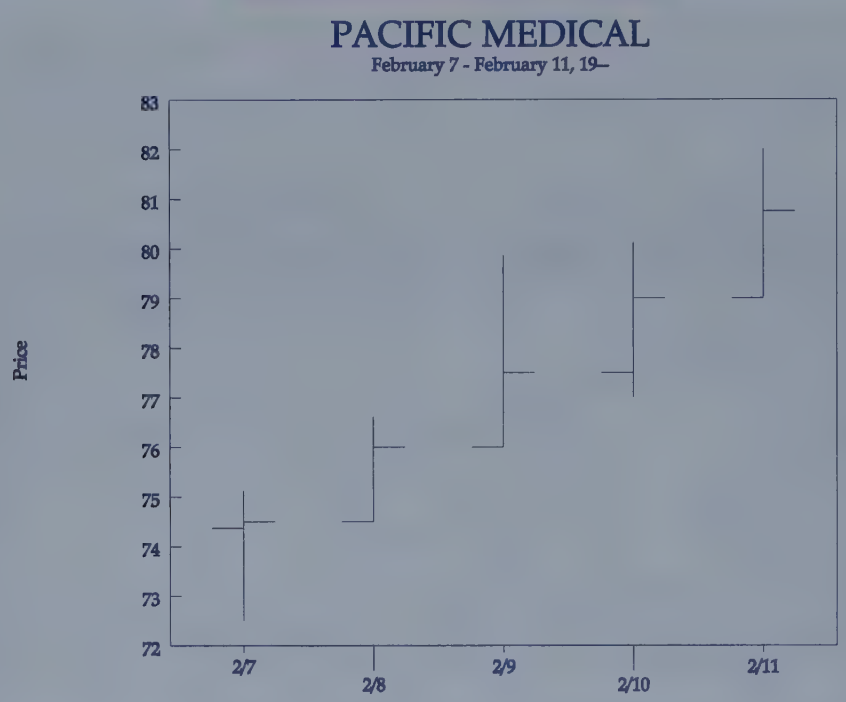
Chad Watkins needs a six-month budget.

1. Globally change the column width to 7 spaces. Change the width of column A to 16 spaces.

2. Right align the column headings and key the data below. Use the Copy command to copy duplicate amounts such as the amounts for Wages, Rent, etc.

	A	B	C	D	E	F	G
1	CHAD WATKINS						
2	SIX-MONTH BUDGET						
3							
4		JAN	FEB	MARCH	APRIL	MAY	JUNE
5		---	---	---	---	---	---
6	INCOME:						
7	Wages	1800	1800	1800	1800	1800	1800
8	Other	99	89	115	125	99	115
9	TOTAL INCOME						
10							
11	EXPENSES:						
12	Rent	550	550	550	550	550	550
13	Food	220	220	220	220	220	220
14	Clothing	125	125	125	125	125	125
15	Car Insurance	225			225		
16	Loan Payment	325	325	325	325	325	325
17	Entertainment	100	100	100	100	100	100
18	Utilities	150	150	140	130	130	130
19	Credit Card Pmt.	150	150	150	150	150	150
20	TOTAL EXPENSES						
21							
22	BALANCE						

Continued on Next Page



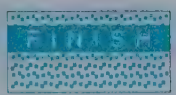
4. Use the Graph menu to name *and* save the graph. Name the graph PCM-HL.

5. Use the main menu to save the spreadsheet. Name your file PCMED.

6. If Wysiwyg is available, add the graph to the spreadsheet in the range A13 through F25.

7. If you added the graph to the spreadsheet, save it and name the spreadsheet with the graph PCMED2. Use Wysiwyg to print the spreadsheet.

3. Use a formula to determine the Total Income on row 9.
4. Use the @SUM function to determine the Total Expenses on row 20.
5. Subtract Total Expenses from Total Income for the Balance on row 22.
6. Save your work. Name your file WATKINS.
7. Print the spreadsheet.



2. Follow instructions below to create an HLCO graph for the week of February 7 through February 11.
   a. With the spreadsheet on the screen, press /.
   b. Choose **G**raph.
   c. Choose **T**ype, **H**LCO.
   d. Choose **X**, highlight the x-axis labels (A6 through A10), and press Enter.
   e. Choose **A**, highlight the prices under High (B6 through B10), and press Enter.
   f. Choose **B**, highlight the prices under Low (C6 through C10), and press Enter.
   g. Choose **C**, highlight the prices under Close (D6 through D10), and press Enter.
   h. Choose **D**, highlight the prices under Open (E6 through E10), and press Enter.
   i. The first title will be **PACIFIC MEDICAL**; the second title will be **February 7 - February 11, 19--**; and the y-axis title will be **Price**.
   j. Choose **V**iew or press F10.

3. Compare your graph to the one on the next page.

1-2-3 Review

Create HLCO Graph:

With the spreadsheet on the screen, press /
Choose **G**raph, **T**ype, **H**LCO
Choose **X**, highlight the x-axis labels, and press ↵
Choose **A**, highlight the prices under High, and press ↵
Choose **B**, highlight the prices under Low, and press ↵
Choose **C**, highlight the prices under Close, and press ↵
Choose **D**, highlight the prices under Open, and press ↵

Continued on Next Page

Reinforcement

The manager of Cathy's Card Shop needs an order summary.

1. Change the width of column A to 5 spaces and column B to 20 spaces.
2. Center the column headings and key the data below.

	A	B	C	D	E
1	CATHY'S CARD SHOP				
2	Order Summary				
3					
4	Item	Description	Price	Quantity	Total
5					
6	123	Select-A-Card	1.95	20	
7	190	Craft	5.95	10	
8	203	Poster	5.4	15	
9	210	Rubber Stamp	4.80	5	
10	232	Birthday Card	1.5	25	
11	332	Postcard	1.95	25	
12	322	Organizer	10.95	5	
13					----------
14	Merchandise Total				
15	Handling Fee				3
16					----------
17	Subtotal				
18	Sales Tax (6.75%)				
19					----------
20	TOTAL AMOUNT DUE				

Continued on Next Page

Create an HLCO Graph

The most common use of the HLCO (High-Low-Close-Open) graph is to show stock prices.

Walt Azinger would like to evaluate his stock with Pacific Medical (PcMed). Prepare a five-day report for the week of February 7 through February 11.

1. Create the spreadsheet below. Right align the column headings and format the values in the spreadsheet for fixed format with 3 decimal places.

	A	B	C	D	E
1	PACIFIC MEDICAL				
2	Week of February 7 - February 11, 19--				
3					
4		High	Low	Close	Open
5					
6	2/7	75.125	72.5	74.5	74.375
7	2/8	76.625	74.5	76	74.5
8	2/9	79.875	76	77.5	76
9	2/10	80.125	77	79	77.5
10	2/11	82	79	80.75	79

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Continued

3. Multiply Price times Quantity to obtain the Total Amount in column E.
4. Use the @SUM function to obtain the Merchandise Total in cell E14.
5. Add the Merchandise Total and the Handling Fee to obtain the Subtotal in cell E17.
6. Determine the Sales Tax in cell E18 by multiplying the Subtotal by 6.75% (+E17*6.75%).
7. Determine the Total Amount Due in cell E20.
8. Format columns C and E for fixed format with 2 decimal places.
9. Save your work. Name your file CARD.
10. Print the spreadsheet.

Add a Grid and Print

1. Retrieve the spreadsheet, TOM. Use the graph TOM-B (press F10 to see if this graph is current).
2. Reset this graph to a line graph and add a horizontal grid.
3. Use the Graph menu to name *and* save the graph. Name the graph TOM-L.
4. Resave the spreadsheet with the name, TOM.
5. Print BRO-L, HEN-L, CAL-L, TOM-B, TOM-L and HIG-L.

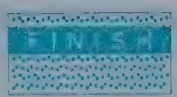
Reinforcement

Gloria Alvarez likes to keep her grades on a spreadsheet. Follow the instructions to prepare this spreadsheet.

1. Change the width of column A to 15 spaces.
2. Right align the column headings for columns B through G and key the data below.

	A	B	C	D	E	F	G
1	GRADE SHEET						
2	GLORIA ALVAREZ						
3	SECOND SEMESTER (1/8/-- to 5/20/--)						
4	THIRD NINE-WEEK PERIOD						
5							
6	Class	1	2	3	4	5	Total
7		+++++++++	+++++++++	+++++++++	+++++++++	+++++++++	+++++++++
8	Comp. Science	180	70	85	168		
9	English	170	200	180	200	178	
10	History	45	37	70			
11	Algebra	65	170	150	174		
12	Biology	150	180	160			
13	Accounting	91	82	88			

3. Use the @SUM function to determine the Total column.
4. Save your work. Name your file GRADE.
5. Print your spreadsheet.



Create a Quick Graph

1. Enter the information in the spreadsheet below. Right align the column headings.

	A	B	C	D
1	HIGHTIME DEPARTMENT STORE			
2	SALES REPORT - FIRST QUARTER			
3				
4		Men	Women	Children
5	January	10250	11630	9860
6	February	9650	9720	7650
7	March	10005	11540	8930

2. Create a quick line graph to compare the monthly sales of the first quarter. The data is arranged columnwise (A4 through D7).

3. Include the following options: First Title, **HIGHTIME DEPARTMENT STORE**; Second Title, **Sales Report - First Quarter**; Legend A, **Men**; Legend B, **Women**; Legend C, **Children**.

4. Use the Graph menu to name *and* to save the graph. Name the graph HIG-L.

5. Use the main menu to save the spreadsheet. Name your file HIGHTI.

Reinforcement

William Fortner keeps his income and expenses on a spreadsheet and uses the information to determine how much he can save.

1. Change the width of column B to 15 spaces.

2. Center the column headings for columns C through E and key the data below.

	A	B	C	D	E
1			Jan	Feb	March
2					
3	INCOME				
4		Work	300	300	325
5		Allowance	100	100	100
6		Interest	45.31	46.05	46.15
7					
8	TOTAL				
9					
10	EXPENSES				
11		Loan-Aunt Sara	30	30	30
12		Car Payment	50	50	50
13		Car Expense	71.9	65.4	42.8
14		Clothes	100.96	50.08	110.54
15		Personal Items	50	144.08	25.82
16		Spending Money	50.9	52.82	55.08
17		Church Pledge	45	45	45
18					
19		TOTAL			
20					
21					
22	SAVINGS				

Continued on Next Page

Create Quick Graphs

It is possible to create a "quick graph" if your spreadsheet data is arranged in consecutive columns and/or rows.

1. Enter the information in the spreadsheet below. Right align the column headings and adjust the column widths as necessary.

	A	B	C	D
1	TOM'S LUNCH COUNTER			
2	SALES REPORT - SECOND QUARTER			
3				
4		April	May	June
5	Hamburger	1025	1163	986
6	Ham Sandwich	965	972	765
7	Chicken Sandwich	1076	1154	893

2. Follow the directions below to create a quick bar graph to compare the monthly sales of the second quarter. The data is arranged rowwise (A4 through D7).
   a. With the spreadsheet on the screen, press /.
   b. Choose **G**raph, **G**roup.
   c. Highlight the range (A4 through D7) and press Enter.
   d. Choose **R**owwise.
   e. Choose **T**ype and select **B**ar.
   f. Choose **O**ptions and include these options: First Title, **TOM'S LUNCH COUNTER**; Second Title, **Sales Report - Second Quarter**; Legend A, **Hamburger**; Legend B, **Ham Sandwich**; Legend C, **Chicken Sandwich**.
   g. Choose **V**iew or press F10.
   h. Select **Q**uit to return to the READY mode.

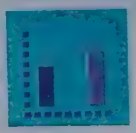
3. Use the Graph menu to name *and* to save the graph. Name the graph TOM-B.

4. Use the main menu to save the spreadsheet. Name your file TOM.

1-2-3 Review

Create a Quick Graph:

With the spreadsheet on the screen, press /
Choose **G**raph, **G**roup
Highlight the range and press ↵
Choose **C**olumnwise or **R**owwise
Choose **T**ype to select the graph type



3. Use the @SUM function to determine the TOTAL in rows 8 and 19.
4. To determine the savings on row 21, subtract the total expenses from the total income.
5. Globally format the spreadsheet for fixed format with 2 decimal places.
6. Save your work. Name your file SPEND.
7. Print your spreadsheet.

Reset a Graph

1. Retrieve CALORIE and use the graph CAL-B.
2. Change the bar graph to a line graph. Leave everything else the same.
3. Use the Graph menu to name *and* to save the graph. Name the graph CAL-L.
4. Use the main menu to resave the spreadsheet with the name CALORIE.

Use the @AVG Function

B & D Enterprises would like a weekly sales summary for the activities of their employees.

1. Globally change the column width to 12 spaces. Change the width of column A to 14 spaces.

2. Right align the column headings for columns B through G and key the data below.

	A	B	C	D	E	F	G
1	B & D ENTERPRISES						
2	WEEKLY SALES SUMMARY						
3	March 4, 19—						
4							Weekly
5	Salesperson	Monday	Tuesday	Wednesday	Thursday	Friday	Average
6		---	---	---	---	---	---
7	Atkinson, K.	555.6	750.36	950.52	1001.25	887.75	
8	Asbury, L.	1234.6	1299.88	1005.82	1556.89	998.45	
9	Asklund, R.	335.78	450.52	1003.85	950.45	750.63	
10	Babb, V.	567.8	1234.88	1005.99	1226.89	999.25	
11	Baldwin, J.	460.75	1459.88	1567.77	1345.25	1002.69	
12	Lossan, A.	1225.55	1288.63	1432.88	1433.45	1088.99	
13	Meharg, J.	1235.67	1889.82	2001.89	2005.63	1006.33	
14	Snow, L.	1263.12	1558.25	988.25	1023.89	888.88	
15							
16	DAILY AVERAGE						

3. Follow the instructions below to use the @AVG function to determine the weekly average in column G.
   a. Place the cell pointer in G7.
   b. Key **@AVG(B7.F7)**.

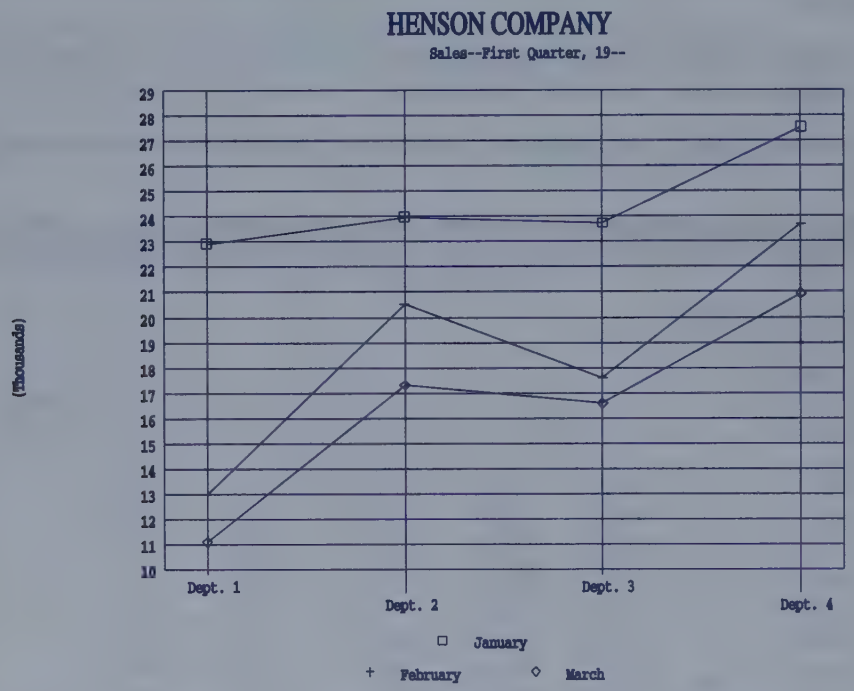
1-2-3 Review

Use the @AVG Function:

Place pointer where the average should appear
Key @AVG(*first cell.last cell*)

Continued on Next Page

4. Compare your graph to the one below.

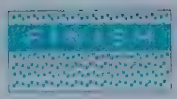


5. Use the Graph menu to name *and* save the graph. Name the graph HEN-L.

6. Use the main menu to resave the spreadsheet with the name HENSON.

NOTE: If you have a mouse, you can use it to point to the cells you want to include in your formula. Key the function name and the opening parenthesis, then click on the first cell of the range. Key a period, then click on the last cell of the range. Key the closing parenthesis.

4. Determine the daily average in columns B through F on row 16.
5. Globally format the spreadsheet for commas with 2 decimal places.
6. Save your work. Name your file WEEKLY.
7. Print your spreadsheet.



Reset a Graph

Henson Company wants to see a line graph for the first quarter sales. Reset the bar graph to a line graph.

1. Retrieve HENSON and use the graph HEN-B.
2. Follow instructions below to reset the bar graph to a line graph. Leave everything else the same.
   a. With the spreadsheet on the screen, press /.
   b. Choose **G**raph, **T**ype, **L**ine.

1-2-3 Review

Reset a Graph:
With the spreadsheet on the screen, press /
To change Types, choose **G**raph, **T**ype, *new type*
Choose **R**eset if other changes are needed

3. Follow the instructions below to add a grid to the line graph with both horizontal and vertical lines.
   a. Choose Options, Grid.
   b. Choose Both.
   c. Choose Quit and View to see if the grid appears.

Add a Grid to a Graph:
Press /
Choose **G**raph
Choose **O**ptions, **G**rid
Choose **H**orizontal, **V**ertical or **B**oth

Continued on Next Page

Use the @MAX and @MIN Functions

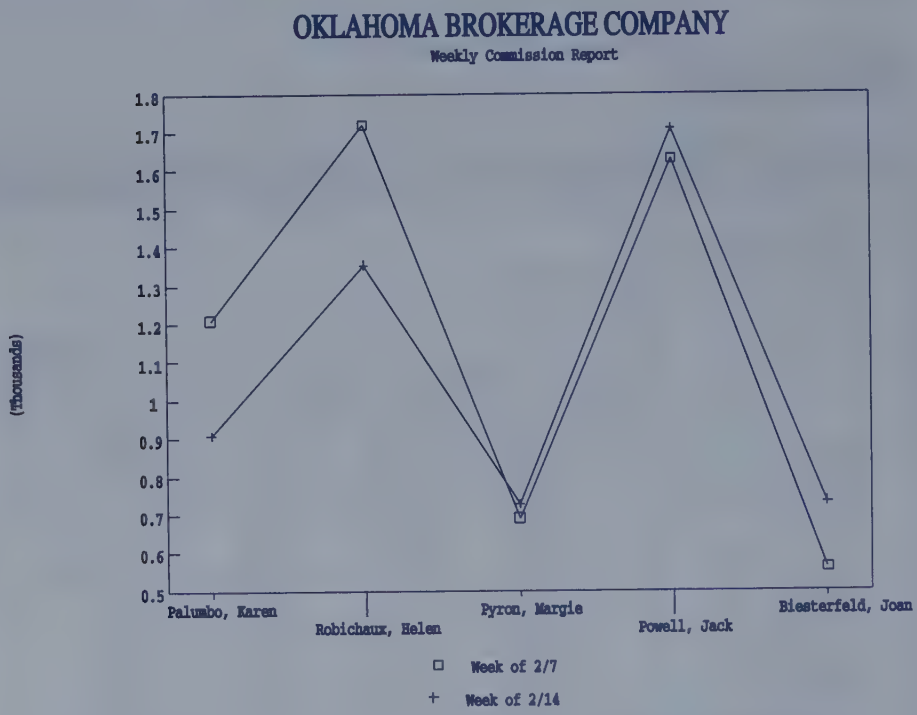
Mr. Smith would like a weekly stock analysis of the stock he owns to determine the average stock price, the low stock price, and the high stock price.

1. Change the width of column A to 15 spaces.
2. Right align the column headings and key the data below.

	A	B	C	D	E	F
1	STOCK ANALYSIS					
2	WEEKLY PRICE COMPARISON					
3						
4						Weekly
5		Week 1	Week 2	Week 3	Week 4	Average
6		++				
7	Ardys	8.25	8	8.75	9.25	
8	Haliburten	29.5	30.3	30.25	33.75	
9	Holman	3.25	4.25	5.75	5.25	
10	Kerr Pumps	45.2	47.25	54.25	54	
11	Maxell	62.75	61.2	62.5	60.5	
12	Penney	17.25	17	16.75	15.75	
13	Legal Press	34.33	35.5	35.75	34.25	
14	ABC Oil	78.25	78.125	79.333	77.75	
15	J & F Corp.	25.2	25.125	30.25	29.625	
16	Jones Petroleum	17.25	16.25	16	15.333	
17						
18	Weekly High					
19	Weekly Low					
20	Weekly Average					

Continued on Next Page

5. Compare the graph to the one below.



6. Use the Graph menu to name *and* to save the graph. Name the graph BRO-L.

7. Use the main menu to save the spreadsheet. Name your file BROKER.

8. If Wysiwyg is available, add the graph to the spreadsheet in the range A35 through H50.

9. If you added the graph to the spreadsheet, use the main menu to save the spreadsheet with the graph. Name the file BROKER2. Use Wysiwyg to print the spreadsheet.

3. Use the @AVG function to determine the Weekly Average in column F.

4. Follow the instructions below to use the @MAX function to determine the Weekly High for columns B, C, D and E.
   a. Place the cell pointer in the first cell where the value should appear.
   b. Key **@MAX(*first cell.last cell*)**.

5. Follow the instructions below to use the @MIN function to determine the Weekly Low for columns B, C, D and E.
   a. Place the cell pointer in the first cell where the value should appear.
   b. Key **@MIN(*first cell.last cell*)**.

6. Use the @AVG function to determine the Weekly Average for columns B, C, D and E.

7. Globally format the spreadsheet for fixed format with 3 decimal places.

8. Save your work. Name the file PRICE.

9. Print your spreadsheet.

1-2-3 Review

Use the @MAX Function:

Place pointer in the cell where the value should appear
Key @MAX(*first cell.last cell*)

Use the @MIN Function:

Place pointer in the cell where the value should appear
Key @MIN(*first cell.last cell*)

FINISH

2. Use a formula to complete column F. Use formulas to enter the Total, Average, Maximum and Minimum for the Sales column and the Commission column.

3. Format the values in columns C and F for commas with 2 decimal places and column D for percent with 0 decimal places.

4. Follow the instructions below to create a line graph for the commission earned by each employee for the week of February 7 and February 14. Use the names under Broker for the x-axis label range, the data under Commission for week 2/7 for the A data range, and the data under Commission for week 2/14 for the B data range.
   a. With the spreadsheet on the screen, press /.
   b. Choose **G**raph.
   c. Choose **T**ype, **L**ine.
   d. Choose **X**, highlight the x-axis range (A9 through A13), and press Enter.
   e. Choose **A**, highlight the first data range (F9 through F13), and press Enter.
   f. Choose **B**, highlight the second data range (F23 through F27), and press Enter.
   g. Add titles. The first title for the graph is **OKLAHOMA BROKERAGE COMPANY** and the second title is **Weekly Commission Report**.
   h. Add legends. The legends are **Week of 2/7** and **Week of 2/14**.
   i. Choose **V**iew or press F10.

1-2-3 Review

Create a Line Graph:

With the spreadsheet on the screen, press /
Choose **G**raph, **T**ype, **L**ine
Choose **X**, highlight the x-axis range, and press ↵
Choose **A**, highlight the first data range, and press ↵
Continue until all data ranges have been selected

Continued on Next Page

Reinforcement

The Sports Grill would like a summary of their weekly payroll expenses.

1. Change the width of column A to 15 spaces.
2. Right align the column headings in B through H and key the data below.

	A	B	C	D	E	F	G	H
1	BG'S SPORTS GRILL							
2	WEEKLY PAYROLL							
3								
4		Hourly	Hours			Federal	State	Net
5	Employee	Rate	Worked	Salary	SS Tax	Tax	Tax	Pay
6								
7	Bender, J.	6.5	20					
8	Claxton, L.	5.25	25					
9	Doepke, K.	6.5	30					
10	Gray, S.	5.75	40					
11	Jones, J.	6.5	25					
12	Kruger, D.	6.5	20					
13	Penwright, M.	6.5	25					
14	Puls, E.	5.25	33					
15	Rich, J.	5.75	40					
16	Stephenson, A.	5.75	20					
17	Traugutt, A.	5.25	25					
18	Weeks, K.	5.25	20					
19								
20	TOTAL							
21	HIGHEST SALARY							
22	LOWEST SALARY							
23	AVERAGE SALARY							

3. Determine the Salary by multiplying the Hourly Rate by Hours Worked.
4. Determine the SS Tax in column E. The Social Security Tax is 7.65% of the Salary.
5. Determine the Federal Tax in column F. The Federal Tax is 15% of the Salary.

Continued on Next Page

Create a Line Graph

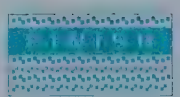
Oklahoma Brokerage Company wants a line graph to show each broker's commission for the week of February 7 and the week of February 14.

1. Create the spreadsheet below.

	A	B	C	D	E	F
1	OKLAHOMA BROKERAGE COMPANY					
2	Weekly Commission Report					
3						
4				Commission		
5	Broker		Sales	Rate		Commission
6	---					
7			Week of 2/7/--			
8	---					
9	Palumbo, Karen		30232	0.04		
10	Robichaux, Helen		28654	0.06		
11	Pyron, Margie		22987	0.03		
12	Powell, Jack		40691	0.04		
13	Biesterfeld, Joan		9321	0.06		
14						
15	Total					
16	Average					
17	Maximum					
18	Minimum					
19						
20	---					
21			Week of 2/14/--			
22	---					
23	Palumbo, Karen		22691	0.04		
24	Robichaux, Helen		22546	0.06		
25	Pyron, Margie		24196	0.03		
26	Powell, Jack		42721	0.04		
27	Biesterfeld, Joan		12196	0.06		
28						
29	Total					
30	Average					
31	Maximum					
32	Minimum					

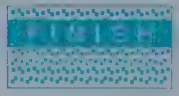
Continued on Next Page

6. Determine the State Tax in column G. The State Tax is 6% of the Salary.
7. Determine the Net Pay in column H (+D7-E7-F7-G7).
8. Determine the totals for columns D, E, F, G and H on row 20.
9. Use the @MAX function to determine the highest salary in cell D21.
10. Use the @MIN function to determine the lowest salary in cell D22.
11. Use the @AVG function to determine the average salary in cell D23.
12. Format columns B, D, E, F, G and H for fixed format with 2 decimal places.
13. Save your work. Name your file GRILL.
14. Print your spreadsheet.



Print Graphs with 3D-Effect

1. Retrieve HENSON.
2. Use the named graph HEN-B and create a 3-D effect with this graph.
3. Use the Graph menu to name *and* to save the graph. Name the graph HEN-3.
4. Use the main menu to resave the spreadsheet with the same name, HENSON.
5. Access PrintGraph and print CAL-3, CLA-B, and HEN-3. **NOTE:** CLA-B will not have a 3-D effect.



Reinforcement

Update your stock list.

1. Retrieve STOCK.
2. Insert a row above row 4. Center the heading **Market** in cell E4 and **Average** in E5.
3. Use the @AVG function to determine the Market Average in column E.
4. Key the label **Average** in A12. Use the @AVG function to determine the average for columns B, C, D and E.
5. Key the label **High** in A13. Use the @MAX function to determine the High in columns B, C, D and E.
6. Key the label **Low** in A14. Use the @MIN function to determine the Low in columns B, C, D and E.
7. Save your work. Name the file STOCK2.
8. Print the spreadsheet.

Print Graphs with 3D-Effect

1. Retrieve CALORIE.

2. Use the named graph, CAL-B.

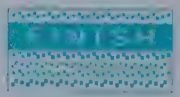
3. Follow the directions below to create a 3-D effect with the graph. The Graph menu should be on your screen.
   a. Choose **T**ype.
   b. Choose **F**eatures.
   c. Choose **3**D-Effect and **Y**es.
   d. Choose **Q**uit. Choose **V**iew and then press any key to return to the Graph menu.

4. Use the Graph menu to name *and* to save the graph. Name the graph CAL-3.

5. Use the main menu to resave the spreadsheet with the same name, CALORIE.

1-2-3 Review

- **3-D Effect:**
  Press /
  Choose Graph
  Choose Type
  Choose Features
  Choose 3D-Effect and Yes
  Choose Quit



Use the @PMT Function

Jake Tracy would like to purchase a new car. He needs a loan comparison table to determine the interest paid for the various rates and times.

1. Globally change the column width to 8 spaces.
2. Right align the column headings and key the data below.

	A	B	C	D	E	F	G	H
1	LOAN COMPARISON							
2								
3		Down	Amount				Amt.	Int.
4	Price	Pmt.	Fin.	Int.	Months	Pmt.	Paid	Paid
5								
6	15000	1500		0.08	36			
7	15000	1500		0.085	36			
8	15000	1500		0.09	36			
9	15000	1500		0.095	36			
10	15000	1500		0.1	36			
11								
12	15000	1500		0.08	48			
13	15000	1500		0.085	48			
14	15000	1500		0.09	48			
15	15000	1500		0.095	48			
16	15000	1500		0.1	48			
17								
18	15000	1500		0.08	60			
19	15000	1500		0.085	60			
20	15000	1500		0.09	60			
21	15000	1500		0.095	60			
22	15000	1500		0.1	60			

Continued on Next Page

4. Follow the instructions below to add legends to the spreadsheet. Legend A will be **January**, B will be **February**, and C will be **March**.
   a. From the Graph menu, choose **O**ptions.
   b. Choose **L**egend.
   c. Choose **A**, key **January**, and press Enter.
   d. Choose **B**, key **February**, and press Enter.
   e. Choose **C**, key **March**, and press Enter.
   f. Choose **Q**uit.

1-2-3 Review

Add Legends to a Graph/Chart:

With the spreadsheet on the screen, press /
Choose **G**raph, **O**ptions, **L**egend
Key legends for each data series and press ↵

5. View and compare the graph to the graph below. The placement of the legends may differ on the screen display.

6. Use the Graph menu to name *and* to save the graph. Name the graph HEN-B.

7. Use the main menu to save the spreadsheet. Name your file HENSON.

FINISH

3. Determine the Amount Financed by subtracting the Down Payment from the Price.

4. Follow the instructions below to use the payment function to determine the Payment in column F.
   a. Place the cell pointer in cell F6.
   b. Key **@PMT(C6,D6/12,E6)**.

1-2-3 Review

Use the @PMT Function:

Place pointer in the cell where the value should appear
Key @PMT (*principal,interest rate*/12,*months*)

NOTE: The payment function calls for three variables: principal, interest rate, and number of months. In the formula above, @PMT calculates the payment for the amount shown in C6 at the rate located in D6 for the number of months located in E6. The rate shown in D6 is the yearly interest rate, so it must be divided by 12 in order to show the monthly interest rate.

5. Determine the Amount Paid in column G by multiplying the Payment by Months.

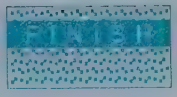
6. Determine the Interest Paid by subtracting the Amount Financed from the Amount Paid.

7. Format columns A, B, C, F, G and H for commas with 0 decimal places.

8. Format column D for percent with 2 decimal places.

9. Save your file. Name your file COMP.

10. Print your spreadsheet.



Create a Multiple-Range Bar Graph

Henson Company wants a graph to compare sales for each department during the months of January, February and March.

1. Create the spreadsheet below with right aligned headings. Format the values for commas with 0 decimal places.

	A	B	C	D	E
1	HENSON COMPANY				
2	4480 West Rockport				
3	Cambridge, MA 02142				
4					
5	Sales--First Quarter, 19--				
6					
7		Dept. 1	Dept. 2	Dept. 3	Dept. 4
8					
9	January	22940	23987	23756	27542
10	February	12987	20518	17596	23710
11	March	11066	17322	16574	20941

2. Create a bar graph for the first quarter sales of 19--. The x-axis label range will be the department numbers (B7 through E7). Use the data for January for the A data range (B9 through E9); February and March data will be used for B and C data.

3. Add titles. The first title will be **HENSON COMPANY** and the second title will be **Sales--First Quarter, 19--.**

Continued on Next Page

Use the Absolute Reference in a Formula

Add additional information to the spreadsheet for American Securities, Inc.

1. Retrieve COMM2.
2. Change the column width of G to 3 spaces.
3. Enter the heading **PERCENT OF** in cell H4 and **TOTAL SALES** in cell H5.
4. Enter the label **TOTAL SALES** in cell A15. Enter a formula in cell B15 to total the sales. Format cells B7 and B15 for currency with 0 decimal places. Adjust the column width as necessary.
5. Follow instructions below to key a formula in H7 with an absolute reference (does not change with location). To determine each broker's percentage of the total sales, divide the broker's SALES by the TOTAL SALES (B15).
   a. Place the cell pointer in cell H7.
   b. To key the formula with an absolute cell reference, key a $ before the column letter and a $ before the row number.
   c. Key **B7/$B$15**.
6. Copy the formula to the remaining cells in column H.
7. Format column H for percent with 0 decimal places.
8. Save your file. Name your file COMM3.
9. Print your spreadsheet.

1-2-3 Review

Use Absolute References:

Place pointer in the cell where the answer should appear

Key the formula using a $ in front of the absolute reference(s)

FINISH

Add a Graph to a Spreadsheet

The Wintersmith Insurance Company wants a graph showing the number of claims filed in each location listed on the spreadsheet.

1. Retrieve CLAIM3.

2. Create a bar graph. Use the data under Location for the x-axis label range and the data under Number of Claims Filed for the A data range.

3. Add titles to your bar graph. The first title will be **WINTERSMITH INSURANCE COMPANY**, and the second title will be **CLAIMS FILED FOR JANUARY, 19--**.

4. Use the Graph menu to name *and* to save the graph. Name the graph CLA-B.

5. Use the main menu to resave the spreadsheet with the same name, CLAIM3.

6. If Wysiwyg is available, follow the instructions below to add the graph to the spreadsheet.
   a. Press Escape to return to the READY mode.
   b. Key a colon (:).
   c. Choose **G**raph, **A**dd, **C**urrent.
   d. Key the range location (A15 through E27) or highlight the range location for the graph and press Enter.
   e. Choose **Q**uit.

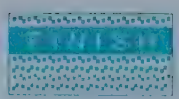
7. If you added the graph to the spreadsheet, use the main menu to save the spreadsheet with the graph. Name the file, CLAIM4.

8. If Wysiwyg is available, follow the instructions below to print the spreadsheet with the graph.
   a. Press Esc to return to the READY mode.
   b. Key a colon (:).
   c. Choose **P**rint.
   d. Choose **R**ange, **S**et. Key the range or highlight the range to be printed and press Enter.
   e. If desired, choose **S**ettings and/or **L**ayout to change default print settings.
   f. Select **G**o.

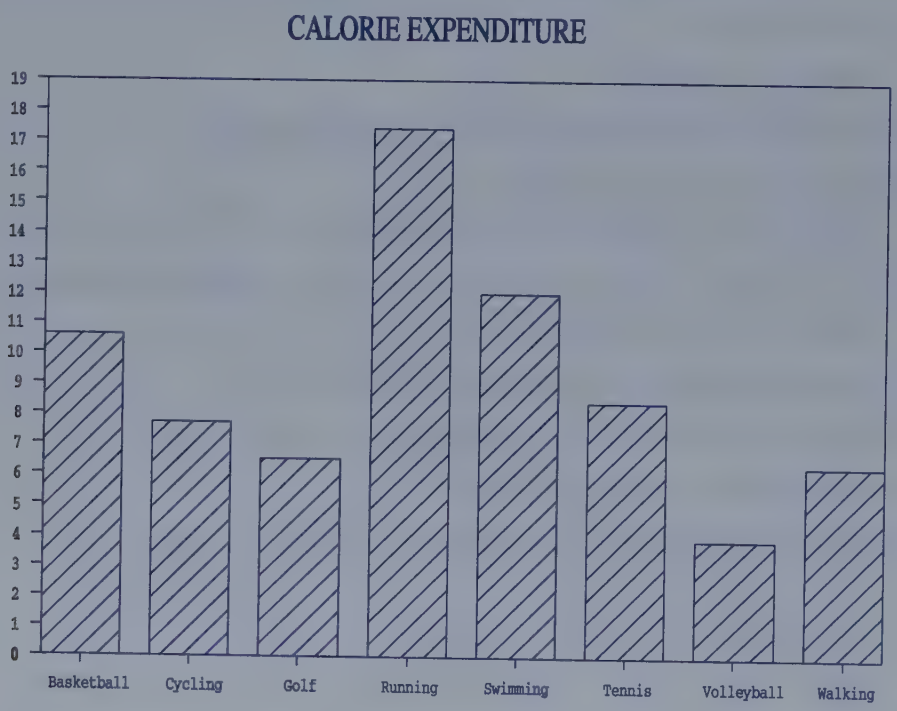
Reinforcement

Smithfield High School wants additional information on their spreadsheet.

1. Retrieve WORK2.
2. Insert a row above row 6.
3. Right align the heading **Total** in cell G7 and **Hours** in cell G8.
4. Right align the heading **Salary** in cell H8.
5. Key a formula to get the Total Hours in column G.
6. Key a formula in H10 to get the Salary. Multiply the hourly rate (absolute reference) times the Total Hours ($B$5*G10).
7. Copy the formula to the remaining cells in column H.
8. Format columns G and H for fixed format with 2 decimal places.
9. Save your file. Name your file WORK3.
10. Print your spreadsheet.

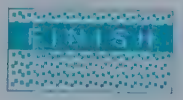


3. View the graph and compare it to the graph below.



4. Use the Graph menu to name *and* save the graph. Name the graph CAL-B.

5. Use the main menu to save the spreadsheet. Name your file CALORIE.



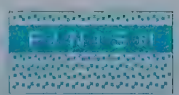
Reinforcement

Add information to the spreadsheet for Gloria Alvarez.

1. Retrieve GRADE.
2. Change the width for columns B through F to 6.
3. Right align the heading **Possible** in H6 and the heading **Percent** in I6. Extend the line of pluses to these columns.
4. Key the data below in column H.

	H
6	Possible
7	
8	600
9	1000
10	185
11	610
12	600
13	300

5. Place the cell pointer in I8 and key a formula to divide Total by Possible to get the Percent. Use the Copy command to complete the column.
6. Format column I for percent with 0 decimal places.
7. Save your work. Name the file GRADE2.
8. Print the spreadsheet.



Create a Single-Range Bar Graph

The physical education teacher would like a graph that will compare the calorie expenditure for some common physical activities.

1. Create the spreadsheet below.

	A	B	C
1	CALORIE EXPENDITURE		
2			
3			Calories
4			per
5	Activity		Minute
6			
7	Basketball		10.6
8	Cycling		7.7
9	Golf		6.5
10	Running		17.4
11	Swimming		12
12	Tennis		8.4
13	Volleyball		3.9
14	Walking		6.3

2. Follow the directions below to create a bar graph for the calorie expenditure for each activity. Use the data under Activity for the x-axis label range and the data under Calories per Minute for the A data range.
   a. With the spreadsheet on the screen, press /.
   b. Choose **Graph**.
   c. Choose **Type**, **Bar**.
   d. Choose **X**, highlight the x-axis label range (A7 through A14), and press Enter.
   e. Choose **A**, highlight the A data range (C7 through C14), and press Enter.
   f. Add the title, **CALORIE EXPENDITURE**.

1-2-3 Review

Create a Bar Graph:

With the spreadsheet on the screen, press /
Choose **Graph**, **Type**, **Bar**
Choose **X**, highlight the x-axis label range, and press ↵
Choose **A**, highlight the A data range, and press ↵

Continued on Next Page

Use the @DATE Function

The coach wants a date included with his height and weight list for all senior members.

1. Retrieve FBALL2.

2. Center the heading **Date** in column F.

3. Follow the instructions below to use the @DATE function to enter the dates below in column F. Use the Copy command as appropriate.
   a. Place the cell pointer in cell F5.
   b. Key **@DATE(*last two digits of the year, the month, day*)**. Example: @DATE(93,9,8) to enter September 8, 1993.
   c. A value will appear. Press /.
   d. Choose **R**ange, **F**ormat, **D**ate.
   e. Choose the format (DD-MMM-YY). The column width may need to be adjusted.

1-2-3 Review

- **Use @DATE:**
  Place pointer where the date should appear
  Key @DATE(*year, month,day*)
  Press /
  Choose **R**ange, **F**ormat
  Choose desired format

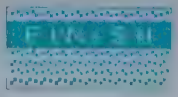
	F
5	08-Sep-93
6	08-Sep-93
7	08-Sep-93
8	08-Sep-93
9	08-Sep-93
10	09-Sep-93
11	09-Sep-93
12	09-Sep-93
13	09-Sep-93
14	09-Sep-93
15	09-Sep-93
16	09-Sep-93
17	09-Sep-93

Continued on Next Page

NOTE: When you access PrintGraph, it may be necessary to change the drive and/or the printer settings. If necessary, choose **S**ettings, **H**ardware, **G**raph-Directory, key drive and path, and then press Enter, **Q**uit, **Q**uit.

and/or

Choose **S**ettings, **H**ardware, **P**rinter, highlight the printer, press the space bar, and then press Enter. Choose **Q**uit, **Q**uit to move back to **I**mage-Select.



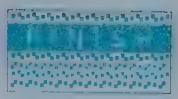
4. Save your work. Name the file FBALL4.

5. Print the spreadsheet.

6. Follow the instructions below to reformat the dates in column F.
   a. Place the cell pointer in cell F5.
   b. Press /.
   c. Choose **R**ange, **F**ormat, **D**ate.
   d. Choose month and year only (MMM-YY) and press Enter.
   e. Highlight F5 through F17 and press Enter.

7. Save your work. Name the file FBALL5.

8. Print the spreadsheet.



Use Named Graphs

Before a graph can be printed, it must first be saved as a graph file with a .PIC extension.

1. Retrieve RIBBON.

2. Follow the directions below to use the chart, RIB-P.
   a. Press /.
   b. Choose **G**raph.
   c. Choose **N**ame.
   d. Choose **U**se, highlight RIB-P and press Enter, or key RIB-P and press Enter.
   e. Press any key to return to the Graph submenu.

3. Save the chart for printing. Name the chart RIB-P. RIB-P is now saved as a graph file with a PIC extension. Choose **Q**uit to return to the READY mode.

4. Follow the directions below to access PrintGraph. You will print RIB- P from this lesson and SAN-P and WAT-P from previous lessons.
   a. From the READY mode, press /.
   b. Choose **Q**uit and **Y**es to exit the spreadsheet. Save the spreadsheet if you are prompted to do so.
   c. Key **pgraph** and press Enter or highlight PrintGraph to access PrintGraph. (If the PGraph program is on a separate disk, insert the **PGRAPH** disk in drive A, key **pgraph**, and press Enter.)
   d. Choose **I**mage-Select.
   e. Highlight the graph name (RIB-P) to be printed and press the space bar to mark the graph for printing.
   f. Repeat step e to mark SAN-P and WAT-P to print.
   g. When all graphs to print are marked, press Enter.
   h. Choose **A**lign, **G**o, **P**age.
   i. When the printing is completed, choose **E**xit and **Y**es to exit PrintGraph.
   j. Key **123** or highlight 1-2-3 to return to Lotus 1-2-3. (If the PGraph program is on a separate disk, remove this disk and insert the program disk in drive A.)

1-2-3 Review

Use a Named Graph/Chart:

Press /
Choose **G**raph, **N**ame
Choose **U**se and highlight the graph name
Press any key to return to the Graph submenu

Access PrintGraph:

Press /
Choose **Q**uit, **Y**es
Key **pgraph** and press ↵
Choose **I**mage-Select
Highlight the graph name and press the space bar
Choose **A**lign, **G**o, **P**age

Continued on Next Page

Use the @COUNT Function

Wilson Jones and Company needs a count of inventory items.

1. Retrieve WILSON.
2. Key the label **Total Inventory Cost** in cell A33. Key a formula in H33 to determine the Total Inventory Cost.
3. Format column H for commas with 0 decimal places. Format cells H8 and H33 for currency with 0 decimal places. Adjust column width as necessary.
4. Key the label **Total Inventory Items** in cell A35.
5. Follow the instructions below to use the @COUNT formula to determine the number of items in the inventory.
   a. Place the cell pointer in cell H35.
   b. Key **@COUNT(H8.H31)**.
6. To improve the appearance of the spreadsheet, center the column headings and add horizontal lines on rows 4, 7, 32, 34 and 36.
7. Save your work. Name the file WILSON4.
8. Print the spreadsheet.

1-2-3 Review

- **Use @COUNT:**
  Place pointer in the cell where the count should appear
  Key @COUNT(*first cell.last cell*)

	I	J
12	550	1
13	220	2
14	125	3
15	225	4
16	325	5
17	100	6
18	138	7
19	150	8

I	J
550	1
220	102
125	3
225	4
325	5
100	6
138	7
150	8

d. Choose /, **G**raph.
e. Choose **B** and highlight the newly entered numbers (J12 through J19) that represent the hatch pattern and/or the slice(s) to explode and press Enter.
f. Choose **V**iew or press F10 to view the chart. Then press any key to return to the Graph menu.

7. Use the Graph menu to name and to save the chart. Name the chart WAT-P.

8. Use the main menu to save the spreadsheet. Name your file WATKINS2.

Vertical Lines

Add information to the spreadsheet for William Fortner.

1. Retrieve SPEND.

2. Insert four rows at the top of the spreadsheet for the following heading and a blank line:

```
WILLIAM FORTNER
INCOME AND EXPENSES
JAN-MAR, 19--
```

3. Follow directions below to create three vertical lines in the range B5 through B25, the range G5 through G25, and the range I5 through I25.
   a. For each vertical line, add a column in the proper location and change its width to 1 space.
   b. Place the cell pointer in the first cell for the line.
   c. Key \|.
   d. Copy the cell to a range below to form the vertical line (row 5 through row 25).

1-2-3 Review

Insert Vertical Lines:

Change column width
Place pointer in first cell
Key \|
Copy cell to the range below

4. Create five horizontal lines across the table on rows 4, 6, 13, 24 and 26.

5. Center the heading **Total** in cell H5 and **Average** in cell J5.

6. Use formulas to complete columns H and J.

7. Copy the formula on row 25 to include columns H and J.

8. Globally format for commas with 2 decimal places.

9. Save the spreadsheet and name it SPEND2.

10. Print the spreadsheet.

FINISH

Create a Pie Chart with Hatch Patterns or Colors

A pie chart is made up of separate slices that fit together to make a circle. Different hatch patterns or colors for the pie slices can be specified, and individual slices can be exploded or separated from the rest of the pie for emphasis.

Chad Watkins wants to compare the six-month average of each of his expenses to his six-month average total expense.

1. Retrieve WATKINS.

2. Right align and key the column heading **AVG** in cell I4.

3. Key a formula to complete column I with the averages for January through June. Format the values in the column for fixed format with 0 decimal places.

4. Create a pie chart and use the expense titles for the x-axis label range (A12 through A19) and the Average column for the A data range (I12 through I19).

5. Add titles to the pie chart. The first title will be **CHAD WATKINS** and the second title will be **EXPENSES (January - June)**.

6. Follow the directions below to create hatch patterns and to explode the slice that represents food.
   a. Move the cell pointer to a blank area in the spreadsheet (J12).
   b. Enter numbers from 1 to 8 in a range of cells that corresponds (same number of entries) to data range A (example below, left). Each number represents a different hatch pattern or color.
   c. Move the cell pointer to J13. Add 100 to the number in this cell (example below, right). This cell represents the slice that will be exploded.

Continued on Next Page

Narrative Reinforcement

Use the spreadsheet to create a budget for Jeremy Evans for June, 19--. All of the information needed is listed below. Refer to Job 61.

Income:

Work at Fast Food Today	$350 per month.
Paper route	150 per month.

Expenses:

Pickup payment	$150 per month.
Pickup insurance	40 per month.

You decide how much can be spent for the expense items below. Determine the amount of savings by subtracting your total expense from your total income.

Dating
Tapes, compact disc
Personal items
Gifts
Miscellaneous spending

Save and print the spreadsheet. Name the file JEREMY.

5. Use the Graph menu to name the chart SAN-P.

6. In order to print graphs or charts, you must save them by choosing the Graph menu first. Follow the instructions below to save the chart. Name the chart SAN-P.
   a. From the Graph menu, choose **S**ave. 1-2-3 displays the default directory.
   b. Key **SAN-P** and press Enter. 1-2-3 will add the extension .PIC to the name.
   c. Choose **Q**uit to return to the READY mode.

7. Use the main menu to resave the spreadsheet.

1-2-3 Review

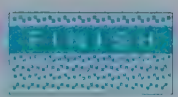
Save a Graph/Chart for Printing:

Press /
Choose **G**raph, **S**ave
Key the name of the chart and press ↵
Choose **Q**uit

FINISH

Narrative Reinforcement

Create a budget similar to the one above for yourself.
Save and print the spreadsheet. Name the file BUDGET.



Create a Pie Chart with Titles

Mr. Sanders wants a chart to compare each customer's account balance with the total amount due.

1. Retrieve SANDERS.

2. Create a pie chart. Use the customer names for the x-axis label range and the account balances for the A data range.

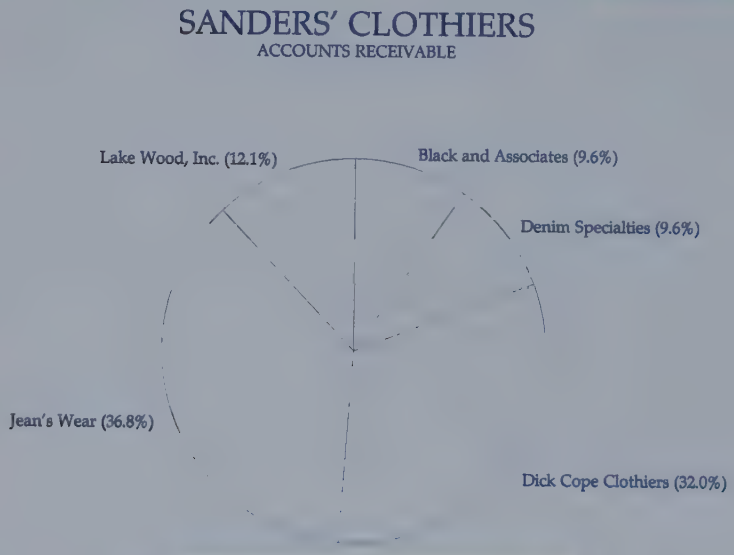
3. Follow the directions below to use the graph options to add titles to your pie chart.
   a. From the Graph menu, choose **O**ptions.
   b. Choose **T**itles.
   c. Choose **F**irst, key the title **SANDERS' CLOTHIERS**, and press Enter.
   d. Choose Titles again. Choose **S**econd, key the title **ACCOUNTS RECEIVABLE**, and press Enter.
   e. Choose **Q**uit.
   f. Choose **V**iew or press F10.

4. Compare your chart to the chart below, then press any key to return to the Graph menu.

1-2-3 Review

Add Titles to Graph/Chart:

With the spreadsheet on the screen, press /
Choose Graph, Options, Titles
Choose First, key the title, and press ↵
For additional titles, choose Titles again
Choose Quit



Continued on Next Page

Narrative Reinforcement

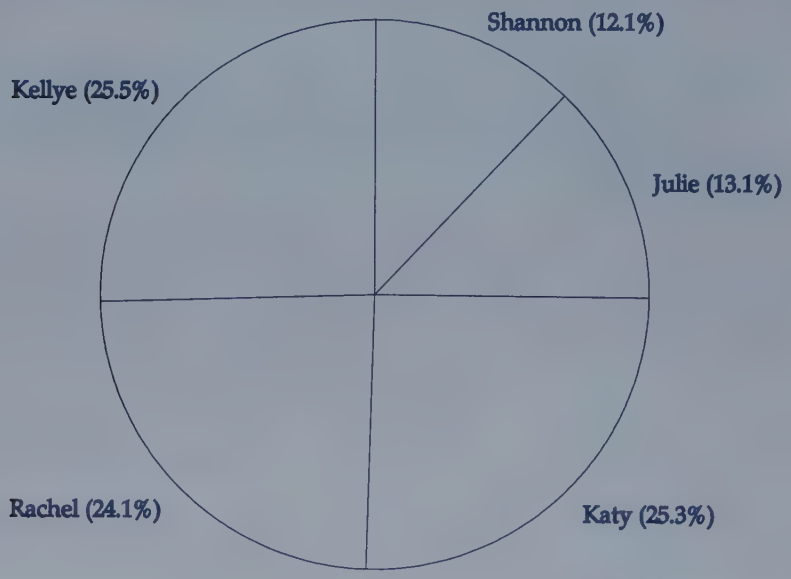
You wish to purchase a car. You will have $500 for a down payment, and you can pay $250 per month on your car. After shopping around, you decide you want one of the autos listed below:

1988 Jeep	$6,000.00
1989 Pickup	7,000.00
1990 Sports Car	8,000.00

You check with the local bank, and you can borrow the money for 24 months at 8% interest or 30 months at 7.5% interest. Create a spreadsheet to determine the payments on each automobile. The title should have YOUR NAME on the first line and INFORMATION FOR AUTOMOBILE PURCHASE on the second line. Refer to Job 66.

Save and print the spreadsheet. Name the file CAR.

3. Compare the chart to the chart below.



4. Press any key to return to the Graph menu.

5. Since only one graph can be current at a time, each chart or graph should be named to save the graph settings. If this is done, the settings can be recalled at any time to edit or view. Follow the instructions below to name the pie chart. Name the chart RIB-P. The Graph menu should still be on your screen.
   a. Choose **N**ame.
   b. Choose **C**reate.
   c. Key **RIB-P** for the graph or chart and press Enter.
   d. Choose **Q**uit or press Esc two times to return to the READY mode.

1-2-3 Review

Name a Graph/Chart:

Press /
Choose **G**raph, **N**ame, **C**reate
Key the name and press ↵
Choose **Q**uit or Esc

6. Graph names are not permanent unless you also save the spreadsheet. Use the main menu to save the spreadsheet (/, f, s). Name the file RIBBON.

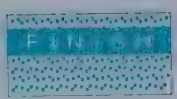
FINISH

Narrative Reinforcement

Ace Skating Rink needs a pay report prepared for their five assistants for the week of February 15—19. Each assistant gets paid $6 per hour. Determine the total hours and the total salary for each assistant. Refer to Job 68.

Jeffrey Anderson		8	9	8	11
Kari Fowler	8	8	8	9	9
Jill Santo	8	8			
Maria Valdez	8	8	9		8
Frank Tomosh	8		8		11

Save and print the spreadsheet. Name the file ACE.



Create and Name a Graph or a Pie Chart

The pep club sponsor would like a chart to compare each girl's sales of ribbon to the total sales. Create a pie chart to show this information.

1. Create the simple spreadsheet below.

	A	B
1	PEP CLUB	
2	RIBBON SALES	
3		
4	Shannon	48.9
5	Julie	52.8
6	Katy	102.2
7	Rachel	97.4
8	Kellye	103

2. Follow the instructions below to create a pie chart for the pep club ribbon sales.
   a. With the spreadsheet on the screen, press /.
   b. Choose **Graph**.
   c. Choose **Type**, **Pie**.
   d. Choose **X**, highlight the x-axis label range (A4 through A8) and press Enter.
   e. Choose **A**, highlight the A data range (B4 through B8) and press Enter.
   f. Choose **View** or press F10.

1-2-3 Review

Create a Pie Chart:

With the spreadsheet on the screen, press /
Choose **Graph**
Choose **Type**, **Pie**
Choose **X**, highlight the x-axis label range, and press ↵
Choose **A**, highlight the A data range, and press ↵

Continued on Next Page

Narrative Reinforcement

The golf coach needs a weekly average for each of his team members. Retrieve GOLF2 and add a column heading for **Average**. Create a formula to determine the average score for all team members for each week. Globally format for fixed format with 0 decimal places. Also, the coach would like a three- week average for each team member. List each member and use a formula to determine the average for each player. Example for Landrum T.: @AVG(H7,H19,H31).

Save and print the spreadsheet. Name the file GOLF3.

CHAPTER 8

Jobs 96—118
Creating Graphs

Time Estimate: 7 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Create and name a graph or pie chart
2. Create a pie chart with titles
3. Save a graph or chart for printing
4. Create a pie chart with hatch patterns or colors
5. Explode a pie chart
6. Use named graphs
7. Print graphs
8. Create a single-range bar graph
9. Add a graph to a spreadsheet
10. Create a multiple-range bar graph
11. Add legends
12. Print graphs with 3-D effect
13. Create a line graph
14. Reset a graph
15. Add a grid
16. Create quick graphs
17. Create an HLCO graph
18. Create a table of named graphs

Narrative Reinforcement

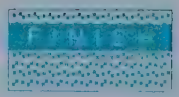
The First State Bank needs additional information on their outstanding loans.

Retrieve FIRST2. Add a label in column F for the **Total Due**. Create a formula in column F to add the Principal and Interest Due to get the Total Due for each loan. Format the column to match the spreadsheet.

Add the label **Total** in A23. Key formulas to show the total Principal, total Interest Due, and Total Due.

Format row 23 for currency with 0 decimal places.

Save and print the spreadsheet. Name the file FIRST3.



25	ADMINISTRATIVE EXPENSES					
26						
27		Ins.	Payroll	Rent	Salary	Utilities
28		Expense	Taxes	Expense	Expense	Expense
29						
30	January	110	9540	1500	7000	465
31	February	110	11610	1500	7000	495
32	March	110	7920	1500	7000	555
33	April	110	7065	1500	7500	585
34	May	110	10125	1500	7500	795
35	June	110	14535	1500	7500	720
36	July	110	13113	1500	7700	570
37	August	110	11943	1500	7700	870
38	September	110	10503	1500	7700	570
39	October	120	7983	1500	7700	435
40	November	120	7812	1500	7800	585
41	December	120	6642	1500	7800	615
42						
43	Totals					

3. Format the spreadsheet for commas with 0 decimal places.

4. Use your macro to save your spreadsheet. Name the file WESTERN2.

5. Print the range A1 through F43 of the spreadsheet. Do not use the macro because the range has not yet been identified. The macro can be used on all succeeding prints of this spreadsheet.

Narrative Reinforcement

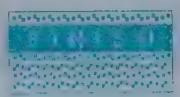
Create a spreadsheet to predict your educational expenses for one year. The figures below are for 1991–1992 and are predicted to rise by 10% per year.

	Private College	State College	State Jr. College	Vo-Tech	Trade
Tuition	$5,250	$1,350	$ 430	$1,000	$6,200
Books, Supplies	480	770	375	200	
Room/Board	3,390	3,000	3,600	3,600	3,600
Car/Gas/Ins.	2,500	2,500	2,500	2,500	2,500
Entertainment	900	900	900	900	900
Clothing	500	500	500	500	500

Choose one of the learning institutions shown above to prepare your worksheet. Use an appropriate heading. In column A list the name of the costs, in column B key the costs from the information above, in column C create a formula for the predicted increase (column B*n%), in column D create a formula for the total of columns B and C. Make any adjustments you feel needed to clothe you, move you around, and pay for your fun.

At the bottom of your spreadsheet, create a formula for your total cost for one year. Format your spreadsheet for commas with 0 decimal places.

Save and print the spreadsheet. Name the file COLLEGE.



Use Label and Formula Macros

1. Retrieve MACRO.

2. Center the column headings and key the spreadsheet below. Be sure to use your macros. Press Alt + n when you need the company name; press Alt + m when you need the months. Press Alt + a when you need the totals.

	A	B	C	D	E	F
1	WESTERN WOODS, MOLDING, AND MILLWORK PRODUCERS					
2	HIGHWAY 44, EAST					
3	SAN FRANCISCO, CA 94109-4201					
4						
5	SELLING EXPENSES					
6						
7		Adv.	Del.	Salary	Supplies	
8		Expense	Expense	Expense	Expense	
9						
10	January	800	990	8910	1200	
11	February	610	1220	10980	915	
12	March	790	810	7290	1185	
13	April	520	710	6390	780	
14	May	1050	1050	9450	1575	
15	June	540	1540	13860	810	
16	July	430	1380	12420	645	
17	August	250	1250	11250	375	
18	September	750	1090	9810	1125	
19	October	810	810	7290	1215	
20	November	720	790	7110	1080	
21	December	530	660	5940	795	
22						
23	Totals					
24						

Continued on Next Page

CHAPTER 6

Jobs 80—88
Locking Titles and Creating Windows

Time Estimate: 3 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Lock titles
2. Create windows
3. Use windows

22	Cash sales estimate, 1995				
23					
24	January				
25	February				
26	March				
27	April				
28	May				
29	June				
30	July				
31	August				
32	September				
33	October				
34	November				
35	December				
36					
37	Totals				

3. The Cash Sales Estimate, 1995, will be 40% of the Actual Sales, 1994. Enter a formula in B24 for this amount. Copy the formula to complete the column.

4. Use your macro to save your spreadsheet. Name the file WESTERN.

5. Press Alt + a to use your formula macro in cells B20, D20 and B37.

6. Format the spreadsheet for commas with 0 decimal places. Adjust the column widths as needed.

7. Use your macro to resave your spreadsheet with the same name.

8. Print range A1 through E37 of the spreadsheet. Do not use the macro because the range has not yet been identified. The macro can be used on all succeeding prints of this spreadsheet.

Lock Titles

Create a video price list for Outstanding Video NetWork.

1. Change column widths as follows:
   column A = 7 column B = 25 column C = 7
   column D = 16 column E = 7

2. Center all column headings and key the spreadsheet below.

	A	B	C	D	E	F
1	OUTSTANDING VIDEO NETWORK					
2	5868 19TH STREET					
3	HUNTSVILLE, TX 77340					
4						
5			Tapes		Price	Cost
6	Cat		per	Developed	per	per
7	No	Title	Pkg	By	Tape	Pkg
8						
9	001V	Your Self Esteem	2	Columbia	39.95	
10	002V	Parliamentary Procedures	1	Lou & Lou Co.	39.95	
11	003V	Cleaning Your VCR	2	Hi Tec Co.	49.95	
12	007V	Conduct the Meeting	1	Lou & Lou Co.	29.95	
13	015V	Understanding Inflation	3	Fritz Co.	29.95	
14	109V	Tool Loader Plus	1	Hi Tec Co.	59.95	
15	110V	Magic Wand Today	1	Hi Tec Co.	29.95	
16	111V	Your Rubber Stamp	1	King Fortner Co.	39.95	
17	113V	Your Name Stamp	1	King Fortner Co.	39.95	
18	118V	Your Time Stamp	1	King Fortner Co.	39.95	
19	145V	Two-Color Airbrush	1	King Fortner Co.	69.95	
20	211V	SAT Prep for Math	1	Columbia	39.95	

Continued on Next Page

Use Label and Formula Macros

1. Retrieve MACRO.

2. Key the spreadsheet below starting in cell A1. Be sure to use your macros. Press Alt + n when you need the company name; press Alt + m when you need the months.

	A	B	C	D	E
1	WESTERN WOODS, MOLDING, AND MILLWORK				
2	HIGHWAY 44, EAST				
3	SAN FRANCISCO, CA 94109-4201				
4					
5	Sales estimate, 1994			Actual sales, 1994	
6					
7	January	95000		96240	
8	February	96000		97380	
9	March	105000		99500	
10	April	110000		102380	
11	May	110000		106970	
12	June	120000		105990	
13	July	120000		137580	
14	August	130000		138850	
15	September	130000		137970	
16	October	110000		125690	
17	November	105000		110380	
18	December	95000		100450	
19					
20	Totals				
21					

Continued on Next Page

3. Move the cell pointer to row 8 and follow the instructions below to lock the horizontal titles.
   a. Press /.
   b. Choose **W**orksheet, **T**itles.
   c. Choose **H**orizontal to lock titles across the top of the spreadsheet, choose **V**ertical to lock titles down the side of the spreadsheet, or choose **B**oth to lock the titles across the top and down the side of the spreadsheet.

4. Add the following information to the spreadsheet.

1-2-3 Review

- **Lock Titles:**
  Place pointer one row below or one column to right of titles
  Press /
  Choose **W**orksheet, **T**itles
  Choose **H**orizontal, **V**ertical or **B**oth

	A	B	C	D	E	F
21	213V	SAT Prep for English	1	Columbia	39.95	
22	256V	Big Thesaurus	1	King Fortner Co.	49.95	
23	259V	Know Your Computer	4	Hi Tec Co.	29.95	
24	266V	Utility Tool Package	1	Hi Tec Co.	39.95	
25	288V	Capitalism	5	Fritz Co.	19.95	
26	300V	Facts about Drugs	1	Sullivan Video	29.95	
27	531V	Spelling Coach	1	King Fortner Co.	39.95	
28	589V	Design Tool Package	1	Hi Tec Co.	39.95	
29	595V	High on Life	1	Columbia	39.95	
30	596V	Make Good Grades	1	Columbia	49.95	
31	599V	Imaging Tool Package	1	Hi Tec Co.	39.95	
32	604V	Power Back	1	King Fortner Co.	69.95	
33	605V	Wall Street Today	2	Fritz Co.	29.95	
34	606V	Peer Pressure	1	Columbia	39.95	
35	607V	Personal Success	1	Columbia	49.95	
36	671V	How to Study	3	Columbia	29.95	
37	682V	Intro. to the PC	2	Hi Tec Co.	29.95	
38	683V	Intro. to MS-DOS	2	Hi Tec Co.	29.95	
39	684V	The Club Officers	1	Lou & Lou Co.	49.95	
40	780V	The Entrepreneurs	3	Videos for Now	19.95	
41	804V	Know Wall Street	2	RT Development	29.95	
42	805V	Decision Making	1	Columbia	49.95	
43	806V	Guide--Job Hunters	1	Videos for Now	39.95	
44	807V	Build Self Esteem	1	Columbia	69.95	
45	946V	Test Taking Without Fear	1	Columbia	39.95	
46	947V	Persuasive Speaking	1	Videos for Now	39.95	
47	993V	High Tech/High Touch	1	Hi Tec Co.	39.95	

Create a Formula Macro

Macros can also be used to execute formulas. In this job, you will create a formula macro to add 13 cells above the cell pointer and format the total for commas with 0 decimal places.

1. Retrieve MACRO.

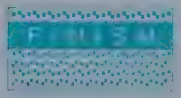
2. Follow the directions below to create the formula macro. Refer to the example below as you work.

	V	W	X	Y	Z	AA	AB	AC
25	@sum({u 13}.{d 12})~/rf,0~~			\a	To add 13 cells above the cursor and			
26					format the total for commas with 0 decimals			

   a. Move the cell pointer to cell V25.
   b. Key the macro formula shown above. Be sure to key an apostrophe before the formula.
   c. Press /, **R**ange, **N**ame, **C**reate. Key **\a** and press Enter. Press Enter again to accept the range.
   d. Move the cell pointer to cell Y25 and key **\a**. (Be sure to key an apostrophe before the name.)
   e. Move the cell pointer to cell Z25 and key the description: **To add 13 cells above the cell pointer and format the total for commas with 0 decimals.**

3. Resave the file with the name MACRO.

NOTE: You will use the label macros and the formula macro when you key the following spreadsheets.



5. Create a formula in column F to multiply Tapes per Pkg by Price per Tape to get Cost per Pkg. Copy the formula to complete column F.

6. Format columns E and F for fixed format with 2 decimal places.

7. Unlock the titles by following the instructions below.
   a. Press /.
   b. Choose **W**orksheet, **T**itles.
   c. Choose **C**lear.

8. When the spreadsheet is complete, save your work. Name the file TAPES.

9. Print the spreadsheet.

1-2-3 Review

- **Unlock Titles:**
  Press /
  Choose Worksheet,
  Titles
  Choose Clear

	V	W	X	Y	Z	AA
9	January{d}			\m	To enter the months	
10	February{d}					
11	March{d}					
12	April{d}					
13	May{d}					
14	June{d}					
15	July{d}					
16	August{d}					
17	September{d}					
18	October{d}					
19	November{d}					
20	December~					

4. Resave the file with the name MACRO.

NOTE: You will use the label macros when you key the spreadsheets in Jobs 94 and 95.

Create Windows

Outstanding Video NetWork needs a sales invoice prepared.

1. Retrieve TAPES.

2. To create a sales invoice at the end of the spreadsheet, key the following additional information starting in cell A51.

	A	B	C	D	E
51	FROM:	Outstanding Video NetWork			
52		5868 19th Street			
53		Huntsville, TX 77340			
54					
55	TO:	Lois Risner	Date: December 8, 19--		
56		4421 Road 84			
57		Huntsville, TX 77342			
58					
59	Cat.		Tapes per		Package
60	No.	Title	Pkg		Price
61					
62	604V				
63	607V				
64	671V				
65					
66				Selling Price	
67				Add 8% Sales Tax	
68				Amount Due	

Continued on Next Page

Create Label Macros

The macros you created at the beginning of this chapter are used to execute commands. You can also create macros to enter labels. These macros are very useful when you need to create a number of spreadsheets of a particular type or for a particular company. Macros can include codes that carry out instructions such as cursor movements and other commands. The codes are entered within braces { } in the macro. Refer to your manual for other commonly used macro commands and descriptions.

In this exercise, you will create label macros to be used in the following jobs. You will use these macro commands in creating your labels: {d} for the down arrow; {u} for the up arrow; and ~ for Enter.

1. Retrieve MACRO.

2. Move the cell pointer to cell S5 to begin creating your label macro. Refer to the example below as you work.

	S	T	U	V	W	X	Y	Z	AA	AB	AC
5	WESTERN WOODS, MOLDING, AND MILLWORK{D}						\n	To enter the company name and address			
6	HIGHWAY 44, EAST{D}										
7	SAN FRANCISCO, CA 94109-4201~										

   a. Beginning in cell S5, key the company name shown above, including the command codes in braces at the end of each line. When you have finished keying the label data, move the cell pointer back to cell S5.
   b. Press /, **R**ange, **N**ame, **C**reate. Key **\n** for the macro name and press Enter.
   c. Press Enter again to accept the range.
   d. Move the cell pointer to cell Y5 and key the macro name, **\n**. (Be sure to key the apostrophe before the name.)
   e. Move the cell pointer to cell Z5 and key the macro description: **To enter the company name and address.**

3. Move the cell pointer to cell V9 and create a label macro to enter the months of the year. The name will be **\m** and it will be in cell Y9. The macro description, **To enter the months**, will be in cell Z9. Use this information and follow the directions above to create the macro. Refer to the example on the next page as you work.

Continued on Next Page

3. Move the cell pointer to row 52 and follow the instructions below to split the spreadsheet into horizontal windows.
   a. Press /.
   b. Choose **W**orksheet, **W**indow.
   c. Choose **H**orizontal.

4. The window with the cell pointer is the active window. F6 moves the cell pointer from one window to the other. The cell pointer should be in the top window.

5. Move the cell pointer to the row with the information about Cat. No. 604V.

1-2-3 Review

Create Windows:
Place pointer one row below or one column to right of where split should be
Press /
Choose **W**orksheet, **W**indow
Choose **H**orizontal or **V**ertical

6. Press F6 and move the cell pointer to row 62. Looking at the top window, key the information needed to complete the sales invoice for Cat. No. 604V.

7. Use the same method to locate the information to complete the sales invoice for the two additional items.

8. Key a formula in cell E66 to total the three amounts above the cell pointer to determine the selling price.

9. Key a formula in cell E67 to multiply the selling price times 8%.

10. Key a formula in cell E68 to add the selling price and the sales tax.

11. Right align the column headings in columns C and E and format column E for fixed format with 2 decimal places.

12. Clear the windows by following the instructions below.
    a. Press /.
    b. Choose **W**orksheet, **W**indow.
    c. Choose **C**lear.

Clear Windows:
Press /
Choose **W**orksheet, **W**indow
Choose **C**lear

13. When the sales invoice is complete, save your work. Name the file TAPES2.

14. Print the sales invoice only (A51 through E68).

Use Command Macros

1. Retrieve OFFICE.
2. Edit the spreadsheet to include the information below.

	A	B	C	D	E
1					
2	Sold to:	Gangloff Office Equip.	Date:	June 30, 19--	
3		6333 Hyde Park Drive	Customer		
4		Peoria, IL 61615-4602	Order:	56 CC 9199	
5					
6					
7	Stock No.	Description/Stock No.	No.	Cost	Total
8					
9	82Z45	Desktop Calculator	3	77	
10	62Y35	Desktop Calculator	2	52	
11	84M84	Cabinet and Safe Comb.	1	235	
12	71W15	4-Drawer Desk	2	325	
13					
14					
15					
16					
17		Subtotal			
18		Tax			
19		Total			

3. When the spreadsheet is complete, press Alt + s to save your spreadsheet. Name the file OFFICE2.
4. Press Alt + p to use the macro to print the spreadsheet.

Use Windows

Create two additional sales invoices for Outstanding Video NetWork.

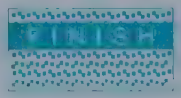
1. Retrieve TAPES2.
2. To create additional sales invoices at the end of the spreadsheet, you will use the sales invoice you created in the last job.
3. Edit the previous invoice by inserting the information below using the strikeover method.

	A	B	C	D	E
55	TO:	Phillip Stephens	Date: December 12, 19--		
56		925 Kings Road			
57		Medford, CA 95780			
58					
59	Cat.		Tapes per		Package
60	No.	Title	Pkg		Price
61					
62	111V				
63	113V				
64	118V				

4. Create a second invoice by copying the invoice (A51 through E68) to cell A75.
5. Move the cell pointer to B79 and insert the information below using the strikeover method. Delete any unnecessary information.

Continued on Next Page

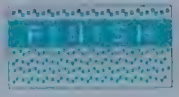
6. Multiply E17 times 8.25% to get the Tax for cell E18.
7. To determine the Total for E19, add the Subtotal and the Tax.
8. Format columns D and E for fixed format with 2 decimal places.
9. When the spreadsheet is complete, press Alt + s to save your spreadsheet. Name the file OFFICE.
10. Print the range A1 through E19 of the spreadsheet. Do not use the print macro because the range has not yet been identified. The print macro can be used on all succeeding prints of this spreadsheet.



	A	B	C	D	E
79	TO:	Oashi Okita	Date: December 13, 19--		
80		8400 Tenth Street			
81		Berkeley, CA 94710			
82					
83	Cat.		Tapes per		Package
84	No.	Title	Pkg		Price
85					
86	211V				
87	213V				

6. When the sales invoices are complete, save your work. Name the file TAPES3.

7. Print the sales invoices only (A51 through E92).



Use Command Macros

1. Retrieve MACRO.
2. Change the width of column A to 10 and column B to 25.
3. Enter the data below. Right align column headings in columns C, D and E on row 7 and center the data in column A.

	A	B	C	D	E
1					
2	Sold to:	Chiang Office System	Date:	June 19, 19--	
3		2556 Towne Road	Customer		
4		Hamden, CT 06514-4421	Order:	56 CC 8222	
5					
6					
7	Stock No.	Description/Stock No.	No.	Cost	Total
8					
9	82Z45	Desktop Calculator	4	77	
10	62Y35	Desktop Calculator	4	52	
11	66X45	Electronic Typewriter	2	365	
12	71W15	4-Drawer Desk	1	325	
13	78R85	Swivel Desk Chair	1	199	
14					
15					
16					
17		Subtotal			
18		Tax			
19		Total			

4. Use a formula to multiply columns C and D to get the Total price in column E.
5. Use a formula to add the Total for all five items to determine the Subtotal in E17.

Continued on Next Page

Lock Titles

Create a sales report for ABC Department Store for the current year.

1. Change the width of column A to 20.

2. The information for the sales report appears on this page and the following page. At this time, key **ONLY** the data for column A and the information in cells B4 through M4.

	A	B	C	D	E	F
1	ABC DEPARTMENT STORE					
2	SALES FOR THE YEAR 19--					
3						
4	DEPARTMENT	JAN	FEB	MAR	APR	MAY
5						
6	ACCESSORIES					
7	Men	2810	1925	2064	2295	3100
8	Women	3211	1482	1529	1783	2083
9	Total					
10						
11	CLOTHING					
12	Men	10254	11529	11783	12083	12216
13	Women	17264	18536	18788	17093	17228
14	Children	8255	9554	9792	10091	10293
15	Total					
16						
17	SHOES					
18	Men	5452	5925	5387	6380	6612
19	Women	8462	9635	9887	8390	8822
20	Children	4552	4455	4297	5190	5392
21	Total					
22						
23	PURSES					
24	Women	4264	4536	4788	4093	4228
25	Children	2255	2554	2972	2093	2972
26	Total					
27						
28	FRAGRANCES					
29	Men	4556	4455	4277	5190	5398
30	Women	8462	9698	9887	8930	8332
31	Total					
32						
33	DEPARTMENT TOTALS					

2. Macros must be separated with at least one blank row. To enter the next macro, which will print a spreadsheet, move the cell pointer to row 3 and follow the instructions below. Refer to the example below as you work.

	V	W	X	Y	Z	AA	AB
3	/ppagq			\p	To print a spreadsheet		

   a. Place the cell pointer in cell V3.
   b. Key the Print command as follows: **'/ppagq**. Press Enter.
   c. Press /, **R**ange, **N**ame, **C**reate. Key **\p** and press Enter.
   d. Press Enter again to accept the range.
   e. Move the cell pointer to Y3 and enter the macro's name, **'\p**, and then press Enter.
   f. Move the cell pointer to Z3 and key the macro description: **To print a spreadsheet**.

3. Use your macro to save your spreadsheet by pressing Alt + s. Name the file MACRO.

	G	H	I	J	K	L	M
1							
2							
3							
4	JUN	JUL	AUG	SEP	OCT	NOV	DEC
5							
6							
7	1964	1995	2031	1931	3195	2031	4064
8	2164	900	984	1031	935	2195	3031
9							
10							
11							
12	11902	11984	11031	11935	12195	23031	28064
13	18922	18999	18036	18988	18197	28341	32096
14	9972	8948	8013	8953	9159	20013	25046
15							
16							
17							
18	5209	5489	5130	5539	6591	11130	14460
19	9229	9999	9630	9889	9791	14143	16698
20	4279	4643	4310	4359	4951	10310	12640
21							
22							
23							
24	4922	4999	4036	4988	4197	7341	8896
25	2972	2849	2013	2953	2159	5301	6046
26							
27							
28							
29	4279	4998	4310	4359	4961	10311	12650
30	9269	9989	9630	9869	9791	14144	16658
31							
32							
33							

Continued on Next Page

Create Command Macros

Macros can be created for commands that are used often. Since almost all spreadsheets are saved and printed, this lesson gives instructions to create two macros: one to save the spreadsheet, and one to print a spreadsheet that has a print range already defined. Several macros can be entered on a spreadsheet, but the macros must be separated by at least one blank row. For more information on creating macros, refer to your manual.

A macro can be entered either in a horizontal row across your spreadsheet or in a column of a spreadsheet. The macro should be entered outside the area you plan to use for the spreadsheet. If you have already keyed the spreadsheet, you can place your macros to the right and below the spreadsheet so you won't accidentally delete the macro when you are working with the spreadsheet. In this chapter, you will begin by keying the macros first, then create the spreadsheets to use them, so you will place the macros far to the right in cells you would probably never use.

ALL MACROS MUST BE ENTERED AS LABELS. If your macro begins with a command character, you must precede that character with an apostrophe.

Throughout this chapter, we will use the following procedure to enter macros on the spreadsheet: the macro instructions will be entered in one cell; the macro's name will be entered in another cell; and finally, a description of the macro will be keyed into a third adjacent cell.

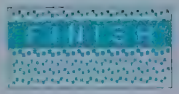
1. Follow the instructions below to create the macro to save a spreadsheet. Refer to the example below as you work.

	V	W	X	Y	Z	AA	AB
1	/fs			\s	To save a spreadsheet		

   a. Move the cell pointer to V1.
   b. Key the Save command as follows: **'/fs**. Press Enter.
   c. Press /, **R**ange, **N**ame, **C**reate. Key **\s** and press Enter.
   d. Press Enter again to accept the range (the first cell of the macro).
   e. Move the cell pointer to cell Y1 and enter the macro's name, **'\s**, and then press Enter.
   f. Move the cell pointer to Z1 and key the macro description: **To save a spreadsheet**.

Continued on Next Page

3. Right align the headings in columns B through M.
4. Go to B5 (one column to the right of the row headings and one row under the column headings) and lock both horizontal and vertical titles.
5. Key the remaining data from both pages of the spreadsheet and key formulas where necessary to complete the Totals and Department Totals.
6. Unlock the titles.
7. Format the entire spreadsheet for commas with 0 decimal places.
8. When the spreadsheet is complete, save your work. Name the file STORE.
9. Print the spreadsheet.



CHAPTER 7

Jobs 89—95
Creating and Using Macros

Time Estimate: 2 hrs.

OBJECTIVES

Upon completion of this chapter, you will be able to:

1. Create command macros
2. Use command macros
3. Create label macros
4. Create a formula macro
5. Use label and formula macros

Create Windows

ABC Department Store needs a sales report for the year. Include only the total sales for each month.

1. Retrieve STORE.
2. Key the additional data below in column A.

	A	B
35	Sales for Year 19--	
36		
37	January	
38	February	
39	March	
40	April	
41	May	
42	June	
43	July	
44	August	
45	September	
46	October	
47	November	
48	December	
49		
50	Total	

3. To position the cell pointer, press Home and then move the cell pointer to B6. Lock both titles.
4. Move the cell pointer to display rows 32 through 46 on the screen, and then move the cell pointer to row 34.

Continued on Next Page

10. Press F6 again and move back to the right window to key the needed data starting in cell Q13.

11. When all totals are keyed, clear the window and titles.

12. When the spreadsheet is complete, save your work. Name the file CHECK2.

13. Print the range O10 through Q18.

5. Create horizontal windows and follow the instructions below to unsynchronize scrolling in the bottom window.
   a. Place the cell pointer in the window to unsynchronize.
   b. Press /.
   c. Choose **W**orksheet, **W**indow, **U**nsync.

6. While in the bottom window, move the cell pointer to cell B37. Locate the totals for January through May in the top window and key the Department Totals in column B.

1-2-3 Review

Unsynchronize a Window:

Place the pointer in the window to unsynchronize
Press /
Choose **W**orksheet, **W**indow, **U**nsync

7. Press F6 to move to the top window and display the information for June through October.

8. Press F6 again and move to the bottom window to key the totals for June through October.

9. Follow the same steps as above to determine the totals for November and December.

10. Clear the window.

11. Key a formula in cell B50 to get the total sales for the year. Adjust column width as necessary. Format column B for commas with 0 decimal places.

12. When the spreadsheet is complete, save your work. Name the file STORE2.

13. Print the range A35 through B50.

Reinforcement

John Meharg wants a list of all tax deductible expenditures.

1. Retrieve CHECK.
2. Press Home and then move the cell pointer to row 8. Lock the horizontal titles.
3. Insert a column between columns F and G. Key **TOTALS** in cell G41.
4. Move the cell pointer to cell H41 and use the sum function to determine the total for Mortgage Interest (H9 through H39).
5. Copy the formula to columns I through M.
6. Format the totals for commas with 2 decimal places.
7. Scroll right until columns I through P are on your screen. Then move the cell pointer to column K and create a vertical unsynchronized window.
8. Press F6 to move the cell pointer to the right window. Change the width of column N to 4 spaces. Key the additional data in the spreadsheet below starting in cell O10.

	O	P	Q
10	JOHN MEHARG		
11	TAX DEDUCTIBLE EXPENDITURES		
12			
13	Mortgage Interest		
14	Taxes		
15	Child Care		
16	Medical		
17	Contributions		
18	Other		

9. Press F6 to move the cell pointer to cell H41 to display data needed to complete the report.

Continued on Next Page

Lock Titles

Create an earnings record for Arthur Anderson for April 1 through September 23 of the current year.

1. Adjust the column widths as needed and key **ONLY** the information in rows 1 through 5 and the information in column A of the spreadsheet below. Right align the column headings.

	A	B	C	D	E	F	G	H	I
1	ARTHUR ANDERSON								
2	EARNINGS RECORD FOR APRIL THROUGH SEPTEMBER, 19--								
3									
4	Wk	Total	Soc	Fed	St	Hosp	Total	Net	Accumulated
5	End	Earnings	Sec	Tax	Tax	Ins	Ded	Pay	Earnings
6									
7	3/31								2048
8	4/1	160				55			
9	4/8	160							
10	4/15	168							
11	4/22	162							
12	4/29	170							
13	5/6	166				55			
14	5/13	160							
15	5/20	160							
16	5/27	162							
17	6/3	168				55			
18	6/10	160							
19	6/17	164							
20	6/24	180							
21	7/1	160				55			
22	7/8	160							
23	7/15	160							
24	7/22	168							
25	7/29	162							
26	8/5	170				55			
27	8/12	166							
28	8/19	160							
29	8/26	160							
30	9/2	162				55			
31	9/9	168							
32	9/16	160							
33	9/23	164							

Continued on Next Page

Continued

10. When the spreadsheet is complete, save your work. Name the file CHECK.

11. Print the spreadsheet.

TAX DEDUCTIBLE EXPENDITURES

Mortgage Interest	Taxes	Child Care	Medical	Contri-butions	Other
550					
	330				
			30		
					15
			90		
	65				
		200			
					150
					225
548					
				125	
			90		
		200			
				75	

2. Press Home and then move the cell pointer to B6 and lock both horizontal and vertical titles.

3. Key the remaining information for columns B through I.

4. Move the cell pointer to C8 and create a formula to multiply Total Earnings by 7.65% to determine the Social Security Tax in column C. Copy the formula to complete the column.

5. Move the cell pointer to D8 and create a formula to multiply Total Earnings by 15% to determine the Federal Income Tax in column D. Copy the formula to complete the column.

6. Move the cell pointer to E8 and create a formula to multiply Total Earnings by 6% to determine the State Income Tax in column E. Copy the formula to complete the column.

7. Move the cell pointer to cell G8 and use the sum function to add cells C8 through F8 to determine the Total Deductions in column G. Copy the formula to complete the column.

8. Move the cell pointer to H8 and create a formula to subtract Total Deductions from Total Earnings to determine the Net Pay in column H. Copy the formula to complete the column.

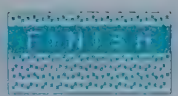
9. Move the cell pointer to I8 and create a formula to add I7 and B8 to determine the Accumulated Earnings. Copy the formula to complete the column.

10. Format columns B through I for commas with 2 decimal places.

11. Clear the titles.

12. When the spreadsheet is complete, save your work. Name the file ARTHUR.

13. Print the spreadsheet.



24	114	1/31	Playskool for Kids	200		
25	115	1/31	Card Services	155		
26	116	1/31	PC Computers	150		
27	117	1/31	South Community College	225		
28		2/1	Deposit		3200	
29	118	2/2	Home Savings and Loan	1100		
30	119	2/4	Salvation Army	125		
31	120	2/5	City Utilities	125		
32	121	2/8	Food World	125.85		
33	122	2/10	O G & G Electric Co.	175		
34	123	2/15	B & B Telephone	85.99		
35	124	2/20	Dr. Gary Bates	90		
36	125	2/25	Daily Tribune	7.5		
37	126	2/29	Playskool for Kids	200		
38	127	2/29	Food World	155.75		
39	128	2/29	Boy Scouts	75		

3. Move the cell pointer to cell F10 and create a formula to determine the balance after each check or deposit (+F9+E10-D10). Copy this formula to complete the column.

4. The spreadsheet on the next page lists the entries from the checkbook that are tax deductible. This spreadsheet should be keyed in the columns adjacent to the checkbook analysis. At this time, key **ONLY** the data in rows 1 through 8 on the spreadsheet on the following page.

5. Right align the headings for columns G through L.

6. Press Home and move the cell pointer to cell E8 and lock both horizontal and vertical titles.

7. Key the remaining data for the Tax Deductible Expenditures.

8. Clear the titles.

9. Format columns D through L for commas with 2 decimal places.

Continued on Next Page

Reinforcement

Arthur Anderson needs a list of his accumulated earnings at the end of each month.

1. Retrieve ARTHUR.
2. Delete columns C through H.
3. Key the additional data below.

	A	B	C	D
35	Accumulated Earnings for Arthur Anderson			
36				
37	March 31			
38	April 29			
39	May 27			
40	June 24			
41	July 29			
42	August 26			
43	September 23			

4. Press Home and then move the cell pointer to B6. Lock both titles.
5. Move the cell pointer to row 14 and split the screen for horizontal windows.
6. Press F6 to move to the bottom window and go to cell C37. Locate the Accumulated Earnings in the top window for March 31 (C7) and April 29 (C12) and key the information in column C.
7. Press F6 and move the cell pointer to the top window to display the needed data to complete the report.
8. Press F6 again and move back to the bottom window to key the Accumulated Earnings through September.
9. When all totals are keyed, clear the titles and windows. Format the totals for commas with 2 decimal places.
10. When the spreadsheet is complete, save your work. Name the file ARTHUR2.
11. Print the spreadsheet.

Reinforcement

Create a checkbook analysis for John Meharg. Some of the entries from his checkbook will then be used to calculate tax deductible expenditures.

1. Change the column widths as follows:
   column A = 6 column B = 7 column C = 25

2. Key the spreadsheet below. All column headings should be right aligned except column C. This column should be centered.

	A	B	C	D	E	F
1	JOHN MEHARG					
2	CHECKBOOK ANALYSIS					
3						
4						
5	----------					
6	Ck					
7	No	Date	Payee	Amount	Deposit	Balance
8	----------					
9						237.25
10		1/1	Deposit		3200	
11	101	1/1	Home Savings and Loan	1100		
12	102	1/1	County Treas. Office	330		
13	103	1/1	City Utilities	75		
14	104	1/1	Food World	75.25		
15	105	1/8	Dr. Charles Stafford	30		
16	106	1/8	Floyd's Pharmacy	15		
17	107	1/15	O G & G Electric Co.	125.25		
18	108	1/16	Comet Cleaners	15		
19	109	1/20	Dr. Gary Bates	90		
20	110	1/25	Food World	125.25		
21	111	1/25	Tax Commission	65		
22	112	1/25	B & B Telephone	75.25		
23	113	1/25	Daily Tribune	7.5		

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QUICK REFERENCE

Absolute reference	$A$1
Cancel	ESC
Center a cell or range	^ or /rlc
Chart, pie	/gtp
Clear screen	/wey
Column width, set	/wcs
Comma format	/rf,
Copy	/c
Currency format	/rfc
Data fill	/df
Date format	/rfd
Delete a cell or range	/re or DEL
Delete a column	/wdc
Delete a row	/wdr
Edit	F2
Erase a cell or range	/re or DEL
Extract	/dq
File, retrieve	/fr
Files, erase	/fe
Files, list	/fl
Files, save	/fs
Format, commas	/rf,
Format, currency	/rfc
Format, date	/rfd
Format, fixed decimals	/rff
Format, percent	/rfp
Formula, Addition	+
Formula, Division	/
Formula, Multiplication	*
Formula, Subtraction	-
Global, comma format	/wgf,
Global, currency format	/wgfc
Global, fixed format	/wgff
Global, percent format	/wgfp
Global, set column width	/wgc
Go to	F5
Go to A1	HOME
Graph, +/-	/rf+
Graph, 3D	/gtf3y
Graph, bar	/gtb
Graph, grid	/gog
Graph, HLCO	/gth
Graph, legends	/gol
Graph, line	/gtl
Graph, name	/gn
Graph, pie	/gtp
Graph, print	/qy and key pgraph, i
Graph, quick	/gg
Graph, save for printing	/gs
Graph, table	/gnt
Graph, titles	/got
Graph, use	/gnu
Graph, view	/gv or F10
Graph, xy	/gtx
Insert a column	/wic
Insert a row	/wir
Left align a cell or range	' or /rll
Line, horizontal	\ + character
Line, vertical	|
Macro, create	/rnc
Macro, use	Alt + name
Move	/m
Percent format	/rfp
Print	/ppr
Quit	/qy
Retrieve	/fr
Right align a cell or range	" or /rlr
Save	/fs
Save a revised file	/fsr
Sort	/ds
Titles, lock both	/wtb
Titles, lock horizontal	/wth
Titles, lock vertical	/wtv
Titles, unlock	/wtc
Windows, clear	/wwc
Windows, create horizontal	/wwh
Windows, create vertical	/wwv
Windows, switch	F6

Function Commands

Add values of a range	@SUM
Average of a range	@AVG
Date format	@DATE
Determine payment	@PMT
Future value of an investment	@FV
Maximum value of a range	@MAX
Minimum value of a range	@MIN
Number of entries	@COUNT
Retrieve cell contents	@VLOOKUP
Retrieve cell contents	@HLOOKUP
Tests a condition	@IF

Wysiwyg Commands

Add graph to a spreadsheet	: ga
Bold, add or delete	: fb
Lines, horizontal	: fl
Lines, vertical	: fl
Print	: p
Shading, add or delete	: fs
Underline, add or delete	: fu

Using *Lotus 1-2-3: Applications for Reinforcement* provides application practice for the features of Lotus 1-2-3 software and reinforces spreadsheet skills.

These features enhance the learning experience:

- Jobs contain step-by-step instructions and rough draft spreadsheets.
- Over 160 different activities cover simple to complex features of Lotus 1-2-3–including macros, graphing, and database.
- Command shortcuts give brief reviews of Lotus 1-2-3 features.
- Reinforcement jobs are included in each chapter to provide additional practice for the features covered in that chapter.
- This text may be used alone to review or reinforce Lotus 1-2-3 skills, or in conjunction with a tutorial as the student learns to use Lotus 1-2-3. This would be a good accompanying text with South–Western's *Lotus 1-2-3: Tutorial and Applications*.
- A Quick Reference guide provides a summary of the most often used Lotus 1-2-3 commands.
- Instructions are based on versions 2.2 to 2.4 of Lotus 1-2-3. Optional instructions are given for Lotus 1-2-3 2.4 features.

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